## UGC-NET

Previous Years Solved Papers 26 Papers of Last 13 Years


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## Paper - I (General Paper on Teaching \&

 Research Aptitude)1. Paper - I December - 2004
2. Paper - I December - 2005
3. Paper - I June - 2006
4. Paper - I December - 2006
5. Paper - I June - 2007
6. Paper - I December - 2007
7. Paper - I June - 2008
8. Paper - I December - 2008
9. Paper - I June - 2009
10. Paper - I December - 2009
11. Paper - I June- 2010
12. Paper-I December-2010
13. Paper - I June - 2011
14. Paper - I December- 2011
15. Paper - I June - 2012
16. Paper - I December - 2012
17. Paper - I June - 2013
18. Paper - I June - 2013 (Retest)
19. Paper - I December - 2013
20. Paper - I June - 2014
21. Paper - I December - 2014
22. Paper - I June - 2015
23. Paper - I December - 2015
24. Paper - I July - 2016
25. Paper - I August - 2016 (Retest)
26. Paper - I January - 2017

## 1. Paper - I December - 2004

## Q1. Discussion Method can be used when:

(A) The topic is very difficult
(B) The topic is easy
(C) The topic is difficult
(D) All of the above

Answer: C
There are different types of teaching methods which can be categorised into three broad types.
These are teacher-centred methods, learner-centred methods, content-focused methods and interactive/participative methods.
Instructional Methods Classified Into

- The Lecture Method
- The Discussion Method
- The Programmed Instruction Method
- The Study Assignment Method
- The Tutorial Method
- The Seminar Method
- The Demonstration Method
- The Demonstration Method
- The Buzz Group
- Role Plays
- Brainstorming

| METHOD | USES | ADVANTAGES | DISADVANTAG |
| :---: | :---: | :---: | :---: |
| THE <br> DISCUSSION <br> METHOD <br> A method in which group discussion | 1. To develop imaginative solutions to problems. <br> 2. To stimulate | 1. Increase students interest <br> 2. Increases students acceptance and commitments. | 1. Require highly skilled instructor. <br> 2. Requires preparation by student. |


| $\\|$ techniques are used to reach instructional objectives. | \|thinking and interest and to secure student participation. <br> 3. To emphasise main teaching points. <br> 4. To <br> supplement lectures, reading, or laboratory exercises. <br> 5. To determine how well student understands concepts and principles. <br> 6. To prepare students for application of theory of procedure. <br> 7. To summarise, clarify points or review. | 3. Utilises student knowledge and experience. <br> 4. Results in more permanent learning because of high degree of student participation. | 3. Limits content. <br> 4. Consumes time. <br> 5. Restricts size of groups. |
| :---: | :---: | :---: | :---: |

## Q2. Which of the following is a teaching aid?

(A) Working Model of Wind Mill
(C) 16 mm Film Projector
(B) Tape Recorder

Answer: D
Teaching aids can be as basic as a blackboard or whiteboard. Audio and visual equipment, such as DVD players and video projectors, are commonly used as tools for learning with a very effective output. Students tend to get more involved when learning if teaching aids are implemented into the
curriculum.
The teaching aids used in the teaching can be classified into the following ways:

Traditional Aids: Blackboard/chalkboard, books, periodicals.
Visual Aids: Objects, picture, map, figure, chart, posters, model, bulletin board, flannel board, globe, graph or any other type of graphics such as diagrams, cut-outs, cartoons, etc.
Mechanical Aids:

- Audio: Radio, tape recorder, teaching machine.
- Visual: Projector, epidiascope, film strips, motion picture, etc.
d. Audio-Visual: Films, television, video, cassettes, etc. Visual Material Aids: Use of Chart: The most commonly used types of charts include outline charts, tabular charts, flow charts and organization charts. Flip charts and flow charts are also being used.


## Q3. The main aim of teaching is:

(A) To develop only reasoning
(C) Both (A) and (B)
(B) To develop only thinking
information
Answer: C

## Q4. The quality of teaching is reflected:

(A) By the attendance of students in the class
(B) By the pass percentage of students
(C) By the quality of questions asked by students
(D) By the duration of silence maintained in the class

Answer: C

## Q5. The present annual examination system:

(A) promotes role learning
(B) does not promote good study habits
(C) does not encourage students to be regular in class
(D) All the above

## Answer: D

Q6. A college wants to give training in use of Statistical Package
for Social Sciences (SPSS) to researchers. For this the college should organize:
(A) Conference
(B) Seminar
(C) Workshop
(D) Lecture

Answer: C

Q7. Which of the following is NOT the characteristic of a research?
(A) Research is systematic
(C) Research is problem oriented Answer: B
(B) Research is not a process
(D) Research is not passive

## Q8. Which of the following statement is correct?

(A) Discoveries are researches
(B) Researches lead to discovery
(C) Invention and Research are related
(D) None of the above

Answer: B

Q9. Which of the following statement is correct?
(A) In research, objectives can be worded in question form
(B) In research, objectives can be worded in statement form
(C) Objectives are to be stated in Chapter I of the Thesis
(D) All the above

Answer: C
Q10. Match List A with List B and choose the correct answer from the code given below:

List A
(a) Historical Method
(b) Survey Method
(c) Philosophical Method
(d) Experimental Method

Code:
(a) (b) (c) (d)

## List B

(i) Past events
(ii) Vision
(iii) Present events
(iv) Exceptional cases
(v) Future action
(A) (i) (iii) (ii) (v)
(B) (i) (ii) (iv) (v)
(C) (i) (iv) (ii) (v)
(D) (i) (ii) (iii) (iv)

Answer: B

## Read the following passage and answer the question numbers 11 to 15.

Each day at the Shantiniketan School starts with the Saraswati Vandana. When painting competitions are held in the school, images of Hindu gods and goddesses are most common. Sanskrit is a favourite subject of many a student. Nothing new about it except that the 1,200-odd students studying in the Hindu - run school are Muslims.

In 1983, when Ranchodbhai Kiri started Shantiniketan in the all - Muslim Juhapura area of Ahmedabad in Gujarat, only 20 percent of the students were Muslims. But when riots involving the Muslims of Juhapura and the Hindus of nearby Jivrajpark - Vejalpur affected the locality, Hindus started migrating. Today, all the students are Muslims and the school is an unparalled example of harmony. In the 2002, when a section of inflamed Muslims wanted the school closed, the parents of the students stood like a wall behind it.

Shantiniketan's principal says, "We never thought of moving the school out of the area because of the love and affection of the local Muslims. Indeed, they value the high standard of education which we have set." Such is the reputation of the school that some of the local Muslim strongmen accused of involvement in communal riots are willing to protect the school during the riots.

The parents of Shantiniketan's students believe that it's the best school when it comes to the quality of the teaching. A large number of students have gone for both graduation and post graduation studies. Significantly, the only Muslim teacher in the 40 - member teaching staff, Husena Mansuri, teaches Sanskrit. In fact, she is so happy at the school that she recently declined the principalship of another Muslim - run school.

Some of the students' entries in a recent school painting competition mere truly moving. One drew a picture of Bharat Mata with a mosque and temple, while another portrayed a boy tying rakhi to his sister. Trully, Shantiniketan is a
beacon of hope that, despite the provocations from both communities, Hindus and Muslims can live side-by-side with mutual respect.

## Q11. How the Shantiniketan school starts the day?

(A) National anthem
(B) Prayer
(C) Saraswati Vandana
(D) Puja
Answer: C

Q12. Write the subject which is preferred by most of the students.
(A) Hindi
(B) English
(C) Sanskrit
(D) Gujarati

Answer: C

Q13. Who protects the school during the riot times ?
(A) Local Muslims
(B) Hindus
(C) Politicians
(D) Christians

Answer: A

## Q14. Who is the teacher of Sanskrit?

(A) Ranchodbhai Kiri
(B) Manisha Vakil
(C) Husena Mansuri
(D) Husena Khatoon
Answer: C

Q15. What is the hope despite the communal riots?
(A) Hindus and Muslims cannot live side by side
(B) Hindus and Muslims can live side by side
(C) Only Hindus can live
(D) Only Muslims can live

Answer: B
Q16. Match List-I with List-II and choose the correct answer using the codes given below :

List-I
(Distinguished Ladies)
(A) Jhumpa Lahiri
(B) Barkha Dutt
(i) Journalist
(ii) Novel Writing
(C) Aparna Sen
(D) Smita Patil

Codes:
(a) (b) (c) (d)
(A) (iv) (iii) (ii) (i)
(B) (ii) (i) (iv) (iii)
(C) (iv) (i) (iii) (ii)
(D) (ii) (iii) (iv) (i)

Answer: B

Q17. Which of the following pair is not correctly matched ?
(A) Aajtaak - 24 hours news channel
(B) F.M. Stations - Radio
(C) National Geography channel - Television
(D) Vir Sanghvi - India Today

Answer: D
Q18. Which is the oldest soap opera telecasted in India ?
(A) Kahani Ghar Ghar Ki
(B) Buniad
(C) Humlog

Bahu Thee
Answer: C
Q19. Which satellite channel uses the adline, "Knowing is everything"?
(A) BBC World
(B) Star
(C) Sony
(D) Zee

Answer: A
Q20. Which is the "First made in India" Kids channel of television ?
(A) Cartoon Network
(B) Walt Disney
(C) United Home Entertainment's Hungama TV
(D) Nick Jr.

Answer: C

Q21. The letters in the first set have certain relationships. On the basis of the relationship which is the right choice for the second set? BF:GK::LP:?
(A) JK
(B) QU
(C) VW
(D) RQ

Answer: B
Explanation:
B $+5=\mathrm{G}, \mathrm{F}+5=\mathrm{K}$
Using same relationship, $\mathrm{L}+5=\mathrm{Q}, \mathrm{P}+5=\mathrm{U}$
Q22. If BLOOD is coded as 24113 and BRUST as 20678, then code for ROBUST is :
(A) 620781
(B) 012678
(C) 678102
(D) 610732

Answer: B
Explanation:
We know, BLOOD is coded as 24113 and BRUST as 20678
From above codes, $B=2, L=4, O=1, D=3, R=0, U=6, S=7, T=8$
So, ROBUST is coded as 012678
Q23. A bag contains an equal number of one rupee, 50 paise and 25 paise coins. If the total amount in the bag is Rs. 35 , how many coins of each type are there ?
(A) 15
(B) 18
(C) 20
(D) 25

Answer: C
Q24. In the sequence of numbers
2/3, 4/7, X, 11/21, 16/31
The missing number X is:
(A) $8 / 10$
(B) $6 / 10$
(C) $5 / 10$
(D) $7 / 13$

Answer: D
Q25. If A stands for 5, B for 6, C for 7, D for 8, and so on, what do
the following numbers stand for :
$22,25,8,22$ and 5 ?
(A) PRIYA
(B) NEEMA
(C) MEENA
(D) RUDRA

Answer: D

Q26. Which of the following statements are always true ?
(a) A wooden table is a table
(b) Now, it is raining or not raining
(c) The sun rises in the East every day
(d) A chicken comes out of a hen's egg

Choose the correct answer from the codes given below :

## Codes:

(A) (a) and (c)
(B) (a), (c) and (d)
(C) (a) and (b)
(D) (b) and (c)

Answer: B

Q27. Which of the following statements are mutually inconsistent ?
(a) Mostly poets are not egoistic
(b) Mostly poets are humble
(c) Some poets are egoistic
(d) Some poets are not non - egoistic

Choose the correct answer from the codes given below :
Codes :
(A) (a) and (d)
(B) (b) and (c)
(C) (a) and (c)
(D) (c) and (d)

Answer: A

## Q28. Which of the following statements is/are absolutely impossible?

(a) A woman giving birth to her own grandchild
(b) A man attending his own funeral
(c) The Sun not rising in the East some day
(d) Cars running without petrol

Choose the correct answer from the codes given below :

## Codes:

(A) (a) and (b)
(B) (c) and (d)
(C) (b)
(D) (a)

Answer: A

## Q29. Which of the following are incorrect ways of arguing?

(a) If horses are cows, and if cows are sheep, then all horses must be sheep.
(b) If top actors are famous, and Shah Rukh Khan is famous, then Shah Rukh Khan is a top actor
(c) Lata is the second sister of Raju, hence Raju is the second brother of Lata
(d) $A$ is not equal to $B$, but $B$ is equal to $C$, hence $A$ is equal to $C$.

Choose the correct answer from the codes given below:

## Codes :

(A) (a), (b) and (c)
(B) (a), (c) and (d)
(C) (b), (c) and (d)
(D) (a), (b) and (d)

Answer: B

Q30. Which of the following statements say the same thing?
(a) "I am clever" (said by Rama)
(b) "I am clever" (said by Raju)
(c) "My son is clever" (said by Rama's father)
(d) "My brother is clever" (said by Rama's sister)
(e) "My brother is clever" (said by Rama's only sister)
(f) "My sole enemy is clever" (said by Rama's only enemy)

Choose the correct answer from the codes given below :
Codes :
(A) (a), (c), (d), (e) and (f)
(B) (a) and (b)
(C) (d) and (e)
(D) (a) and (f)

Answer: A

Study the following graph and answer the questions from 31 to 33:


Q31. In which year was the sale of 'Pep-up' the maximum ?
(A) 1990
(B) 1992
(C) 1993
(D) None of the above

Answer: D

Q32. In the case of which soft drink was the average annual sale maximum during the period 1988-1993.
(A) Pep - up only
(B) Cool - sip only
(C) Cool - sip and Dew - drop
(D) Pep - up and Dew - drop

Answer: A

Q33. What was the approximate percent drop in the sale of Pep up in 1990 over its sale in 1989 ?
(A) 5
(B) 12
(C) 14
(D) 20

Answer: C

Q34. The "Report on Currency and Finance" for each of the financial year in India is published by :
(A) Reserve Bank of India
(B) Ministry of Finance
(C) Planning Commission
(D) Central Statistical Organization

Answer: A
Q35. The number of students in two classes $A$ and $B$ and the respective "mean" of the marks obtained by each of the class are given in the following table :
Class A Class B

Number of Students
Arithmetic Mean

20
10

80
20

The combined "mean" of the marks of the two classes will be :
(A) 18
(B) 15
(C) 10
(D) 20

## Answer: B

## Q36. ICT stands for :

(A) International Communication Technology
(B) Intera Common Terminology
(C) Information and Communication Technology
(D) Inter connected Terminals

## Answer: C

## Q37. Which of the following statements is NOT correct ?

(A) Computer is capable of processing only digital signal
(B) Computer is capable of analysing both quantitative and qualitative data
(C) Appropriate software is required for processing the data
(D) Computer is capable of processing digital as well as analog signals Answer: A

## Q38. Which of the following is the appropriate definition of Information Technology?

(A) Information Technology refers to the use of hardware and software for processing information
(B) Information Technology refers to the use of hardware and software for distribution of useful information
(C) Information Technology refers to the use of hardware and software for storage, retrieval, processing and distributing information of many kinds. (D) Information Technology refers to the use of principles of Physical sciences and Social sciences for processing of information of many kinds.
Answer: C
Q39. Which of the following statements is correct?
(A) Virus improves the speed of processing information through computer
(B) Internet does not allow the virus to spread
(C) Virus is a part of software
(D) Virus is an operating system

Answer: C
Q40. Which of the following is correct statement?
(A) Computers can be used for diagnosing the difficulty of a student in learning a subject
(B) Psychological testing can be done with the help of computer provided a software is available
(C) A set of instructions is called a programme
(D) All the above

Answer: D
Q41. Global warming during winter becomes more pronounced at the :
(A) Equator
(B) Poles
(C) Tropic of Cancer
(D) Tropic of Capricorn
Answer: D

Q42. In the study of man-environment interaction, the statement of Miss Semple that "the humans are solely the product of their environment", is :
(A) An opinion
(B) A prejudice
(C) A fact
(D) A widely accepted phenomenon

Answer: C
Q43. In analysis of man-environment relationship Pragmatic Possibilism implies that :
(A) There is no limit for man to exploit resources of earth
(B) There are limited possibilities to explore earth's resources
(C) The man has to watch and assess the situation and then go ahead with resource utilization
(D) The man has to keep in mind only his basic needs while planning to harness the potential of resourceful earth
Answer: C

Q44. Arrange Column II in proper sequence so as to match it with Column I and choose the correct answer from the codes given below :
Column I
Activity
(a) Hearing
(b) Whispering
(c) Interference with sleep
(d) Normal talk

Codes :
(a) (b) (c) (d)
(A) (i) (ii) (iii) (iv)
(B) (ii) (i) (iv) (iii)
(C) (iv) (ii) (iii) (i)
(D) (iii) (i) (ii) (iv)

Answer: B

Q45. The maximum loss of forest lands in India is caused by :
(A) River valley projects
(B) Industries
(C) Means of transportation
(D) Agriculture

Answer: A
Q46. In which year the University Grants Commission was established ?
(A) 1948
(B) 1944
(C) 1953
(D) 1960
Answer: C

Q47. Another name of Basic Education or Nai Talim is :
(A) Compulsory Education
(B) New Education Policy
(C) Wardha Education Plan
(D) Sarva Shikshya Abhiyan

Answer: C

Q48. The idea of 'Democratic Decentralisation' in India was popularised by :
(A) A.D. Gorwala Committee, 1951
(B) Paul H. Appleby Committee, 1953
(C) B.R. Mehta Committee, 1957
(D) Ashok Mehta Committee, 1978

Answer: C
Q49. In India, a political party is recognised as a National or Regional Party by the :
(A) President of India
(B) Election Commission of India
(C) Law ministry in consultation with the Law Commission of India
(D) Union Parliament in consultation with the State Legislatures

Answer: B
Q50. Which of the following factor/s is/are responsible for the increase of the role of Government in Developing Countries?
(a) Economic Planning
(b) Rising expectation of people
(c) Privatisation
(d) Emergence of the concept of Welfare

State
Select the most appropriate answer from the codes given below:
Codes :
(A) (a) and (d)
(B) (a), (b) and (d)
(C) Only (c)
(D) Only (d)

Answer: A

## 2. Paper - I December - 2005

Q1. Team teaching has the potential to develop:
(A) Competitive spirit
(B) Cooperation
(C) The habit of supplementing the teaching of each other
(D) Highlighting the gaps in each other's teaching

Answer: C
Q2. Which of the following is the most important characteristic of Open Book Examination system?
(A) Students become serious.
(B) It improves attendance in the classroom.
(C) It reduces examination anxiety amongst students.
(D) It compels students to think.

Answer: D

Q3. Which of the following methods of teaching encourages the use of maximum senses?
(A) Problem-solving method
(B) Laboratory method
(C) Self-study method
(D) Team teaching method

Answer: B
Q4. Which of the following statement is correct?
(A) Communicator should have fine senses
(B) Communicator should have tolerance power
(C) Communicator should be soft spoken
(D) Communicator should have good personality

Answer: A

Q5. An effective teacher is one who can:
(A) control the class
(B) give more
information in less time
(C) motivate students to learn carefully
Answer: C

Q6. One of the following is not a quality of researcher:
(A) Unison with that of which he is in search
(B) He must be of alert mind
(C) Keenness in enquiry
(D) His assertion to outstrip the evidence

## Answer: D

Q7. A satisfactory statistical quantitative method should not possess one of the following qualities
(A) Appropriateness
(B) Measurability
(C) Comparability
(D) Flexibility

Answer: D

Q8. Books and records are the primary sources of data in:
(A) historical research
(B) participatory research
(C) clinical research
(D) laboratory research

Answer: A

Q9. Which of the following statement is correct?
(A) objectives should be pin-pointed
(B) objectives can be written in statement or question form
(C) another word for problem is variable
(D) all the above

Answer: A

Q10. The important pre-requisites of a researcher in sciences, social sciences and humanities are
(A) laboratory skills, records, supervisor, topic
(B) Supervisor, topic, critical analysis, patience
(C) archives, supervisor, topic, flexibility in thinking
(D) topic, supervisor, good temperament, pre-conceived notions Answer: B

## Read the following passage and answer the questions 11 to 15

Knowledge creation in many cases requires creativity and idea generation. This is especially important in generating alternative decision support solutions. Some people believe that an individual's creative ability stems primarily from personality traits such as inventiveness, independence, individuality, enthusiasm, and flexibility. I lowever, several studies have found that creativity is not so much a function of individual traits as was once believed, and that individual creativity can be learned and improved. This understanding has led innovative companies to recognise that the key to fostering creativity may be the development of an idea-nurturing work environment. Idea-generation methods and techniques, to be used by individuals or in groups, are consequently being developed. Manual methods for supporting idea generation, such as brainstorming in a group, can be very successful in certain situations. However, in other situations, such an approach is either not economically feasible or not possible. For example, manual methods in group creativity sessions will not work or will not be effective when (1) there is no time to conduct a proper idea-generation session; (2) there is a poor facilitator (or no facilitator at all); (3) it is too expensive to conduct an idea-generation session; (4) the subject matter is too sensitive for a face-toface session; or (5) there are not enough participants, the mix of participants is not optimal, or there is no climate for idea generation. In such cases, computerised idea-generation methods have been tried, with frequent success.

Idea-generation software is designed to help stimulate a single user or a group to produce new ideas, options and choices. The user does all the work, but the software encourages and pushes, something like a personal trainer. Although idea-generation software is still relatively new, there are several packages on the market. Various approaches are used by idea-generating software to increase the flow of ideas to the user. Idea Fisher, for example, has an associate lexicon of the English language that cross-references words and phrases. These associative links, based on analogies and metaphors, make it easy for the user to be fed words related to a given theme. Some software packages use questions to prompt the user towards new, unexplored patterns of
thought. This helps users to break out of cyclical thinking patterns, conquer mental blocks, or deal with bouts of procrastination.

Q11. The author, in this passage has focused on (A) knowledge creation (B) idea-generation (C) creativity
(D) individual traits

Answer: A

Q12. Fostering creativity needs an environment of
(A) decision support systems
(B) idea-nurturing
(C) decision support solutions
(D) alternative individual factors

Answer: B

Q13. Manual methods for the support of idea-generation, in certain occasions,
(A) are alternatively effective
(B) can be less expensive
(C) do not need a facilitator
(D) require a mix of optimal participants

Answer: A

## Q14. Idea-generation software works as if it is a

(A) stimulant
(B) knowledge package
(C) user-friendly trainer
(D) climate creator

Answer: A
Q15. Mental blocks, bouts of procrastination and cyclical thinking patterns can be won when:
(A) innovative companies employ electronic thinking methods
(B) idea-generation software prompts questions
(C) manual methods are removed
(D) individuals acquire a neutral attitude towards the software

Answer: B

Q16. Level $C$ of the effectiveness of communication is defined as:
(A) channel noise
(B) semantic noise
(C) psychological noise
(D) source noise

Answer: A

Q17. Recording a television programme on a VCR is an example of:
(A) time-shifting
(C) mechanical clarity
synchronisation
Answer: D
Q18. A good communicator is the one who offers to his audience:
(A) plentiful of information
(B) a good amount of statistics
(C) concise proof
(D) repetition of facts

Answer: A

Q19. The largest number of newspapers in India is published from the state of:
(A) Kerala
(B) Maharashtra
(C) West Bengal
(D) Uttar Pradesh
Answer: D

## Q20. Insert the missing number:

82412 ? 1854
(A) 26
(B) 24
(C) 36
(D) 32

Answer: C

## Explanation:

Numbers are alternatively multiplied by 3 and divided by 2 .
So, the next number $=3 \times 12=36,36 \div 2=18$
Q21. January 1, 1995 was Sunday. What day of the week lies on January 1, 1996 ?
(A) Sunday
(B) Monday
(C) Saturday
(D) None of these
Answer: B
Explanation:

Leap year is a year, occurring once every four years, which has 366 days instead of the normal 365 days. The extra day is added in February, which has 29 days instead of the normal 28 days.
Exception: Century years are NOT leap years UNLESS they can be evenly divided by 400 . For example, 1700, 1800, and 1900 were not leap years, but 1600 and 2000 were.

## Counting odd days and calculating day of any particular date:

1 ordinary year $=365$ days $=(52$ weeks +1 day $)$
Hence number of odd days in 1 ordinary year $=1$.
1 leap year $=366$ days $=(52$ weeks +2 days $)$
Hence number of odd days in 1 leap year $=2$.
100 years $=(76$ ordinary years +24 leap years $)=(76 \times 1+24 \times 2)$ odd days $=124$ odd days. $=(17$ weeks +5 days $)=5$ odd days.

Hence number of odd days in 100 years $=5$
Number of odd days in 200 years $=(5 \times 2)=10=3$
Number of odd days in 300 years $=(5 \times 3)=15=1$
Number of odd days in 400 years $=(5 \times 4+1)=21=0$

| 0 odd days | Sunday |
| :--- | :--- |
| 1 odd days | Monday |
| 2 odd days | Tuesday |
| 3 odd days | Wednesday |
| 4 odd days | Thursday |
| 5 odd days | Friday |
| 6 odd days | Saturday |

Here, 1995 is a normal year. It has one odd day. So the first day of 1996 will be Monday.

Q22. The sum of a positive number and its reciprocal is twice the difference of the number and its reciprocal. The number is :
(A) $\sqrt{ } 2$
(B) $1 / \sqrt{ } 2$
(C) $\sqrt{ } 3$
(D) $1 / \sqrt{ } 3$

## Answer: C

## Explanation:

Let the number be x . Its reciprocal is $1 / \mathrm{x}$.
We are given, $x+1 / x=2(x-1 / x)$
$\Rightarrow\left(x^{2}+1\right) / x=2\left(x^{2}-1\right) / x \Rightarrow\left(x^{2}+1\right)=2\left(x^{2}-1\right) \Rightarrow-x^{2}=-3 \Rightarrow x^{2}=3 \Rightarrow x=\sqrt{3}$
Q23. In a certain code, ROUNDS is written as RONUDS. how will PLEASE will be written in the same code
(A) LPAESE
(B) PLAESE
(C) LPAEES
(D) PLASEE

Answer: B

Q24. At what time between 5.30 and 6.00 will the hands of a clock be at right angles?
(A) $43 \frac{5}{11}$ min. past 5
(B) $43^{7 / 11}$ min. past 5
(C) 40 min. past 5
(D) 45 min past 5

Answer: B

Q25. Statements : I. All students are ambitious
II. All ambitious persons are hard working

Conclusions : (i) All students are hard-working
(ii) All hardly working people are not ambitious

Which of the following is correct?
(A) Only (i) is correct
(B) Only (ii) is
correct
(C) Both (i) and (ii) are correct
(D) Neither (i) nor (ii) is
correct
Answer: C
Q26. Statement : Most students are intelligent
Conclusions :(i) Some students are intelligent
(ii) All students are not intelligent

Which of the following is implied?
(A) Only (i) is implied
(B) Only (ii) is
implied
(C) Both (i) and (ii) are implied
(D) Neither (i) nor (ii) is implied
Answer: B

## Q27. Statement: Most labourers are poor

Conclusions : (i) Some labourers are poor
(ii) All labourers are not poor

Which of the following is implied?
(A) Only (i) is implied
(B) Only (ii) is
implied
(C) Both (i) and (ii) are implied
(D) Neither (i) nor (ii) is implied

Answer: B
Q28. Line access and avoidance of collision are the main functions of:
(A) the CPU
(B) the monitor
(C) network protocols
(D) wide area networks

Answer: C
Q29. In the hypermedia database, information bits are stored in the form of:
(A) signals
(B) cubes
(C) nodes
(D) symbols

Answer: C
Explanation:
Hypermedia database model stores chunks of information in the form of nodes connected by links established by the user. The nodes can contain text, graphics, sound, full-motion video, or executable computer programs.

Q30. Communications bandwidth that has the highest capacity and is used by microwave, cable and fibre optics lines is known as:
(A) hyper-link
(B) broadband
(C) bus width
(D) carrier wave
Answer: B

Q31. An electronic bill board that has a short text or graphical advertising message is referred to as:
(A) bulletin
(B) strap
(C) bridge line
(D) banner

Answer: D

Q32. Which of the following is not the characteristic of a computer?
(A) computer is an electrical machine
(B) computer cannot think at its own
(C) computer processes information error free
(D) computer can hold data for any length of time

Answer: A

## Q33. Bitumen is obtained from

(A) Forests and Plants
(B) Kerosene oil
(C) Crude oil
(D) underground
mines

Answer: C

## Explanation:

Bitumen/asphalt/tar is a common binder used in road construction. Bitumen is obtained from crude oil by the process called fractional distillation. It is principally obtained as a residual product in petroleum refineries after higher fractions like gas, petrol, kerosene and diesel, etc., are removed.

Q34. Malaria is caused by:
(A) bacterial infection
(B) viral infection
(C) parasitic infection
(D) fungal infection

Answer: C

## Explanation:

Malaria is a parasitic infection spread by Anopheles mosquitoes. The Plasmodium parasite that causes malaria is a single-celled parasite that multiplies in red blood cells of humans as well as in the mosquito intestine.

Q35. The cloudy nights are warmer compared to clear nights (without clouds) during winter days. This is because:
(A) clouds radiate heat towards the earth
(B) clouds prevent cold wave from the sky, descend on earth
(C) clouds prevent escaping of the heat radiation from the earth
(D) clouds being at great heights from earth absorb heat from the sun and send towards the earth
Answer: C

## Q36. Largest soil group of India is:

(A) Red soil
(B) Black soil
(C) Sandy soil
(D) Mountain soil

Answer: C

## Explanation:

Eight major soil groups available in India are: Alluvial Soils, Black Soils, Red Soils, Laterite Soils, Forest and Mountain Soils, Arid and Desert Soils, Saline and Alkaline Soils, Peaty and organic Soils. Alluvial soils constitute the largest soil group in India, constituting 80\% of the total land surface. An alluvial soil in India is of three types: Sandy soil, Clayey soil and Loamy soil.

Q37. Main pollutant of the Indian coastal water is
(A) oil spill
(B) municipal
sewage
(C) industrial effluents
(D) aerosols

Answer: C

Q38. Human ear is most sensitive to noise in the following frequency ranges:
(A) $1-2 \mathrm{KHz}$
(B) $100-500 \mathrm{~Hz}$
(C) $10-12 \mathrm{KHz}$
(D) $13-16 \mathrm{KHz}$

Answer: A

Q39. Which species of chromium is toxic in water:
(A) $\mathrm{Cr}+2$
(B) $\mathrm{Cr}+3$
(C) $\mathrm{Cr}+6$
(D) Cr is non-toxic element

Answer: C
Q40. Match List - I (Dams) with List - II (River) in the following:

## List - I (Dams)

a. Bhakra
b. Nagarjunasagar
c. Panchet
d. Hirakud
e. Tehri

## List - II (River)

(i) Krishna
(ii) Damodar
(iii) Sutlej
(iv) Bhagirathi
(v) Mahanadi
a b c d e
(A) v iii iv ii i
(B) iii i ii ver
(C) i ii iv iii
(D) ii iii iv i

Answer: B
Explanation:
Bhakra Dam is across the Satluj River in Bilaspur, Himachal Pradesh. Nagarjuna Sagar Dam is across the Krishna river at Nagarjuna Sagar where the river is forming boundary between Nalgonda district of Telangana and Guntur district of Andhra Pradesh.
Panchet Dam is constructed across the Damodar River at Panchet in Dhanbad district in the state of Jharkhand.
Hirakud Dam is built across the Mahanadi River in the state of Odisha. The Tehri Dam is the tallest dam in India. It is on the Bhagirathi River near Tehri in Uttarakhand.

## Q41. A negative reaction to a mediated communication is

 described as:(A) flak
(B) fragmented
feedback
(C) passive response
(D) non-conformity

Answer: C

## Explanation:

Mediated communication refers to communication carried out by the use of information communication technology, and can be contrasted to face-to-face communication.

Q42. The launch of satellite channel by IGNOU on $\mathbf{2 6}^{\text {th }}$ January 2003 for technological education for the growth and development of

## distance education is:

(A) Eklavya channel
(B) Gyandarshan channel
(C) Rajrishi channel
(D) None of these

Answer: A

## Explanation:

Eklavya Technology Channel is a distant learning joint initiative between the IIT and IGNOU. It was inaugurated on 26 January 2003. The objective of this Channel is to bring to the audience the actual IIT classrooms virtually at their door steps. It is a channel dedicated to technical education.

## Q43. Match List - I with List-II and select the correct answer

 from the code given below:
## List - I (Institutions)

(a) The Indian Council of Historical

## List - II (Locations)

(i) Shimla

Research (ICHR)
(b) The Indian Institute of Advanced
(ii) New Delhi

Studies (IIAS)
(c) The Indian Council of Philosophical

Research (ICPR)
(d) The Central Institute of Coastal
(iii) Banglore
(iv) Lucknow

Engineering for fisheries

| a b c d <br> (A) ii i iv iii |
| :---: |
| (B) i ii iii iv |
| (C) ii iv i iii |
| (D) iv iii ii |

Answer: A

## Explanation:

Indian Council of Historical Research is an autonomous organization situated in New Delhi under the Ministry of Human Resource Development. The objectives of ICHR are:

- to bring historians together and provide a forum for exchange of views between them.
- to give a national direction to an objective and scientific writing of history and to have rational presentation and interpretation of history.
- to promote, accelerate and coordinate research in history with special
emphasis on areas which have not received adequate attention so far. - to promote and coordinated a balanced distribution of research effort over different areas.
- to elicit support and recognition for historical research from all concerned and ensure the necessary dissemination and use of results.
The Indian Institute of Advanced Study (IIAS) is a research institute based in Shimla, Himachal Pradesh.
Indian Council of Philosophical Research (ICPR) was established in March 1977 under Department of Higher Education and Ministry of Human Resource Development. Its Headquarters is at New Delhi and Academic Centre is at Lucknow.
Some of the objectives of the Council are:
- Review the progress of research in philosophy on regular basis.
- Co-ordinate research activities in philosophy and encourage interdisciplinary research.
- Promote collaboration in research between Indian philosophers and international philosophical institutes.
- Promote teaching and research in Philosophy.

The Central Institute of Coastal Engineering for Fishery (CICEF), formerly known as Pre-Investment Survey of Fishing Harbours (PISFH) is a premier institution of the Government of India established in January 1968 at Bangalore with its jurisdiction covering the entire Indian coastline for conducting engineering and economic investigations and preparing the TechnoEconomic Feasibility Reports (TEFRs) for the fishery harbour (FH) projects.

## Q44. Which of the following is not a Fundamental Right?

(A) Right to equality
(B) Right against exploitation
(C) Right to freedom of speech and expression
(D) Right of free compulsory education of all children upto the age of 14

## Answer: All are fundamental rights

Q45. The Lok - Sabha can be dissolved before the expiry of its normal five year term by:
(A) The Prime Minister
(B) The Speaker of Lok Sabha
(C) The President on the recommendation of the Prime Minister
(D) None of the above

Answer: C
Study the following graph carefully and answer Q.No. 46 to 50 given below it:


Q46. In which year the value per tin was minimum?
(A) 1995
(B) 1996
(C) 1998
(D) 1999

Answer: A
Q47. What was the difference between the tins exported in 1997 and 1998?
(A) 10
(B) 1000
(C) 100000
(D) 1000000

Answer: A

Q48. What was the approximate percentage increase in export value from 1995 to 1999?
(A) 350
(B) 330.3
(C) 433.3
(D) None of these

Answer: D (233.3)

Q49. What was the percentage drop in export quantity from 1995 to 1996?
(A) 75
(B) 50
(C) 25
(D) None of these

Answer: C

Q50. If in 1998, the tins were exported at the same rate per tin as that in 1997, what would be the value (in crores of rupees) of export in 1998?
(A) 400
(B) 375
(C) 352
(D) 330

Answer: C

## 3. Paper - I June - 2006

## Q1. Which of the following comprise teaching skill?

(A) Black Board writing
(B) Questioning
(C) Explaining
(D) All the above

Answer: D
All of the above are the teaching skills without them a teacher is like a without gun in a battalefield. Basic teaching skills
Setting the scene - make sure that your students are comfortable and ready to start learning
Being student centred - do you know what the students want to learn in each session?
Assessing prior knowledge - check what the students know already
Asking questions - keep your questions straightforward, but try and probe deeper levels of knowledge. Give the students enough time to answer Checking understanding - make sure that the pitch and pace of the session is right
Using visual aids - it is worth taking time to find these, and using flip charts and OHPs wherever possible
Setting homework - vital to promote life-long learning, but check learning objectives and learning strategy are reasonable and ask students to present their work
Summarising and closing a session - don't give new information, and remind students about next week's topic

## Q2. Which of the following statements is most appropriate?

(A) Teachers can teach.
(B) Teachers help can create in a student a desire to learn.
(C) Lecture Method can be used for developing thinking.
(D) Teachers are born.

## Answer: B

Teacher does not play only a information mongering role in the classroom but
to instill and infuse the inspiration in the students in order to bring desirable changes in future and make him an ideal citizen

## Q3. The first Indian chronicler of Indian history was:

(A) Megasthanese
(B) Fahiyan
(C) Huan Tsang
(D) Kalhan

## Answer: D

Kalhan as a historian: Kalhan is an important historian in Indian history. The 12th century A.D.Kashmiri poet, Kalhan, wrote "Rajtarangini" - the river of kings. Which has been of great value for the study of the history of Kashmir. This history of his native land is in verse and the language is Sanskrit. Out of the Sanskrit writings, Rajtarangini is one of the foremost historical writing.

## Q4. Which of the following statements is correct?

(A) Syllabus is a part of curriculum.
(B) Syllabus is an annexure to curriculum.
(C) Curriculum is the same in all educational institutions affiliated to a particular university.
(D) Syllabus is not the same in all educational institutions affiliated to a particular university.

## Answer: A

Curriculum is wider term consisting academic and non-academic part of all activities within the school premises. The syllabus belongs to only its academic part pertaining to $\mathrm{C} / \mathrm{R}$ teaching-learning process.
Syllabus is the document that contains all the portion of the concepts covered in a subject.
Curriculum is the overall content, taught in an educational system or a course.
Syllabus is a Greek term. While Curriculum is a Latin term.
Syllabus is Set for A subject while Curriculum A course.
Syllabus is Descriptive while Curriculum is Prescriptive.
Syllabus Scope is Narrow while Curriculum scope is Wide.
Syllabus Set out by Exam board while Curriculum set out by Government or the administration of school, college or institute.
Syllabus Term is a fixed term, normally a year while Curriculum term is Till the course lasts.
Syllabus Varies from teacher to teacher while Curriculum Same for all
teachers.

## Q5. Which of the two given options is of the level of understanding?

(I) Define noun.
(II) Define noun in your own words.
(A) Only I
(B) Only II
(C) Both I and II
(D) Neither I nor II
Answer: B

Human cognition is having 3 levels of thinking process viz. Memory Level; Understanding Level; and Reflective Level. Among these, Memory level is related to Recall and Recognition of the concept but its higher level is associated with ASSIMILATION and ABSORPTION of the content hence the option 2 is reflects the understanding level in clare terms.

## Q6. Which of the following options are the main tasks of research in modern society?

(I) to keep pace with the advancement in knowledge.
(II) to discover new things.
(III) to write a critique on the earlier writings.
(IV) to systematically examine and critically analyze the investigations/sources with objectivity.
(A) IV, II and I
(B) I, II and III
(C) I and III
(D) II, III and IV

## Answer: A

Option 1 is most suitable because in modern society, the research has 3 basic roles. 1) The students whether in pure sciences/social sciences have been trained in scientific methodology in order to keep/develop the adequate potentiality of scientific Attitude towards life, man and society. That's why a realistic training has been imparted in Labs/Fieldwork/Through preparation of reports. 2) It is an era of vertical progress in science and only the person having scientific bent of mind may find himself more interactive/manipulative in the ongoing society. 3) The task of research is also to satisfy timeless inquisitiveness of human mind. Therefore, it is also having discovery oriented apporach

Q7. Match List-I (Interviews) with List-II (Meaning) and select the correct answer from the code given below:

## List - I (Interviews)

(a) structured interviews
(b) Unstructured interviews answered
(c) Focused interviews
(d) Clinical interviews
(v) non-directive

## List - II (Meaning)

(i) greater flexibility approach
(ii) attention on the questions to be
(iii) individual life experience
(iv) Pre determined question

Code:
(a)
(b)
(c)
(d)
(A) (iv)
(ii)
(iii)
(B) (ii)
(iv)
(i)
(iii)
(C) (v)
(ii)
(iv)
(D) (i)
(iii) (v)
(iv)

Answer: A
Because : 1) Structured interview is having everything preplanned in advanced like- interviewer plan, Time, No of questions to be asked etc.
2) Unstructured interview as its name suggest and just opposite to above have full fledged flexibility on the part of interviewer like-Place. Tim, open/closed ended Questions on limited to formal talks.
3) Focused interview in some-what detective type conversation to arrive at some definite conclusion related to taboos/problems/performances etc.
4) Clinical interview is conducted for diagnosing problems whether in conscious/unconscious state of human mind in order to provide some sort of remedial programme.

## Q8. What do you consider as the main aim of inter disciplinary

 research?(A) To bring out holistic approach to research.
(B) To reduce the emphasis of single subject in research domain.
(C) To over simplify the problem of research.
(D) To create a new trend in research methodology.

## Answer: A

Inter-disciplinary approach of research is the latest innovation in the field and
believes that the elements of scientific phenomenon must be dealt in integrated form instead of disintegrated form to bring out the concept in its HOLISTIC point of view. For example, Student school problems may be surveyed by a team of researchers to dig out its depth like an Educationist, Class-room teacher, Doctor Clinical Psychologist, Counselor, Guidance worker. It gives a detailed mapping plan of all the difficulties lying with the students simultaneously.

Q9. One of the aims of the scientific method in research is to:
(A) improve data interpretation relations
(C) confirm triangulation variables

## Answer: B

aims of the scientific method in research is: Observe and Describe Predict Determination of the Causes Explain The aims of research can then be finetuned, or may serve to open up new areas of interest. Either way, the store of human knowledge has been enriched and increased.

Q10. The depth of any research can be judged by:
(A) title of the research.
(B) objectives of the research.
(C) total expenditure on the research.
(D) duration of the research.

Answer: B

## Read the following passage and answer the questions 11 to 15:

The superintendence, direction and control of preparation of electoral rolls for, and the conduct of, elections to Parliament and State Legislatures and elections to the offices of the President and the Vice - President of India are vested in the Election Commission of India. It is an independent constitutional authority. Independence of the Election Commission and its insulation from executive interference is ensured by a specific provision under Article 324 (5) of the constitution that the chief Election Commissioner shall not be removed from his office except in like manner and on like grounds as a Judge of the Supreme Court and conditions of his service shall not be varied to his disadvantage
after his appointment.
In C.W.P. No. 4912 of 1998 (Kushra Bharat Vs. Union of India and others), the Delhi High Court directed that information relating to Government dues owed by the candidates to the departments dealing with Government accommodation, electricity, water, telephone and transport etc. and any other dues should be furnished by the candidates and this information should be published by the election authorities under the commission.

Q11. The text of the passage reflects or raises certain questions:
(A) The authority of the commission cannot be challenged.
(B) This would help in stopping the criminalization of Indian politics.
(C) This would reduce substantially the number of contesting candidates.
(D) This would ensure fair and free elections.

## Answer: D

Q12. According to the passage, the Election Commission is an independent constitutional authority. This is under Article No. :
(A) 324
(B) 356
(C) 246
(D) 161

Answer: A

## Q13. Independence of the Commission means:

(A) have a constitutional status.
(C) have judicial powers.

Answer: A
Q14. Fair and free election means:
(A) transparency
(B) to maintain law
and order
(C) regional considerations
(D) role for pressure groups

## Answer: B

Q15. The Chief Election Commissioner can be removed from his office under Article :
(A) 125
(B) 352
(C) 226
(D) 324

## Answer: D

Q16. The function of mass communication of supplying information regarding the processes, issues, events and societal developments is known as:
(A) content supply
(B) surveillance
(C) gratification
(D) correlation

Answer: A
The function of mass communication of supplying information regarding the processes, issues, events and societal developments is known as Content supply

Q17. The science of the study of feedback systems in humans, animals and machines is known as:
(A) cybernetics
(B) reverse communication
(C) selectivity study
(D) response analysis

## Answer: A

Cybernetics is the study of communication and control processes in living organisms and machines. Cybernetics analyzes the ability of humans, animals, and some machines to respond to or make adjustments based upon input from the environment. This process of response or adjustment is called feedback or automatic control. Feedback helps people and machines control their actions by telling them whether they are proceeding in the right direction.

## Q18. Networked media exist in inter-connected:

(A) social environments
(B) economic environments
(C) political environments
(D) technological environments

Answer: D
External factors in technology that impact business operations. Changes in technology affect how a company will do business. A business may have to dramatically change their operating strategy as a result of changes in the technological environment.

Q19. The combination of computing, telecommunications and media in a digital atmosphere is referred to as:
(A) online communication
(B) integrated media
(C) digital combine

Answer: D
Technological convergence is the tendency that as technology changes, different technological systems sometimes evolve toward performing similar tasks.
Digital convergence refers to the convergence of four industries into one conglomerate, ITTCE (Information Technologies, Telecommunication, Consumer Electronics, and Entertainment).
Telecommunications convergence, network convergence or simply convergence are broad terms used to describe emerging telecommunications technologies, and network architecture used to migrate multiple communications services into a single network. Specifically this involves the converging of previously distinct media such as telephony and data communications into common interfaces on single devices, such as most smart phones can make phone calls and search the web.

Q20. A dialogue between a human-being and a computer programme that occurs simultaneously in various forms is described as:
(A) man-machine speak
(B) binary chat
(C) digital talk

Answer: D
(D) interactivity

In computers, interactivity is the dialog that occurs between a human being (or possibly another live creature) and a computer program. (Programs that run without immediate user involvement are not interactive; they're usually called batch or background programs.) Games are usually thought of as fostering a great amount of interactivity. However, order entry applications and many other business applications are also interactive, but in a more constrained way (offering fewer options for user interaction).

## Q21. Insert the missing number:

 16/32, $15 / 33,17 / 31,14 / 34$,?(A) $19 / 35$
(B) $19 / 30$
(C) $18 / 35$
(D) $18 / 30$

## Answer: D

$16 / 32$ then $15 / 33$ means $-1 /+1$,
$17 / 31$ means $+2 /-2$,
14/34 means $-3 /+3$
next $+4 /-4$ i.e $18 / 30$
Q22. Monday falls on $\mathbf{2 0}^{\text {th }}$ March 1995. What was the day on $3^{\text {rd }}$ November 1994?
(A) Thursday
(B) Sunday
(C) Tuesday
(D) Saturday
Answer: A

Form 3rd November to 30 November no of days $=28$
1 st Dec to 31 st December no of days $=31$
1 st Jan to 31 st Jan no of days $=31$
1 st feb to 28 feb no of days $=28$
1 st march to 20 March no of days $=20$
Total no of days $28+31+31+28+20=138$
Therefore, 138 divide by 7 remaining 5
i.e 5 days back form 1) Monday 2) Sunday, 3) Saturday, 4) Friday,
5) Thursday,

Q23. The average of four consecutive even numbers is 27 . The largest of these numbers is:
(A) 36
(B) 32
(C) 30
(D) 28

Answer: C
Four consecutive even number $=x, x+2, x+4, x+6$.
According to question, $x+x+2 x+4 x+6 / 4=27$.
$4 x+12 / 4=27$
$4 \mathrm{x}=108-12=96$.
$x=96 / 4=24$. Hence, The largest number $=x+4=24+6=30$. The numbers are 24 , 2628 , and 30 , which addition is 108 which average is 27 , So biggest is 30

Q24. In a certain code, FHQK means GIRL. How will WOMEN be written in the same code?
(A) VNLDM
(B) FHQKN
(C) XPNFO
(D) VLNDM

Answer: A

Decode the CODE with next Alphabet of Code. i.e A with B, B with C.
Q25. At what time between 4 and $5 O^{\prime}$ 'clock will the hands of a watch point in opposite directions?
(A) 45 min. past 4
(B) 40 min. past 4
(C) $50 \frac{4}{11}$ min. past 4
(D) $54 \frac{6}{11}$ min. past 4

Answer: D

Q26. Which of the following conclusions is logically valid based on statement given below?
Statement: Most teachers are hard working.
Conclusions:
(I) Some teachers are hard working.
(II) Some teachers are not hard working.
(A) Only (I) is implied
(B) Only (II) is implied
(C) Both (I) and (II) are implied
(D) Neither (I) nor (II) is implied

Answer: C

Q27. Who among the following can be asked to make a statement in Indian Parliament?

## (A) Any MLA

(B) Chief of Army

Staff
(C) Solicitor General of India
(D) Mayor of Delhi

Answer: C
The Solicitor General of India is subordinate to the Attorney General for India, who is the Indian government's chief legal advisor, and its primary lawyer in the Supreme Court of India. The Solicitor General of India is appointed for the period of 3 years. The Solicitor General of India is the secondary law officer of the country, assists the Attorney General, and is himself assisted by several Additional Solicitors General of India. Ranjit Kumar is the present Solicitor General who was appointed so on 6 June 2014. Like the Attorney General for India, the Solicitor General and the Additional Solicitors General advise the Government and appear on behalf of the Union of India in terms of the Law

Officers (Terms and Conditions) Rules, 1972. However, unlike the post of Attorney General for India, which is a Constitutional post under Article 76 of the Constitution of India, the posts of the Solicitor General and the Additional Solicitors General are merely statutory.

Q28. Which of the following conclusions is logically valid based on statement given below?
Statement: Most of the Indian states existed before independence.

## Conclusions:

(I) Some Indian States existed before independence.
(II) All Indian States did not exist before independence.
(A) only (I) is implied
(B) only (II) is implied
(C) Both (I) and (II) are implied
(D) Neither (I) nor (II) is implied

Answer: B

Q29. Water is always involved with landslides. This is because it:
(A) reduces the shear strength of rocks
(B) increases the weight of the overburden
(C) enhances chemical weathering
(D) is a universal solvent

## Answer: B

A landslide is a geological phenomenon that includes a wide range of ground movements.
Rockfalls, deep failure of slopes and shallow debris flows were common.
Landslides can occur in offshore, coastal and onshore environments.
Natural causes of landslides include:

1) Groundwater (pore water) pressure acting to destabilize the slope
2) Loss or absence of vertical vegetative structure, soil nutrients, and soil structure.
3) Erosion of the toe of a slope by rivers or ocean waves weakening of a slope through saturation by snow melt, glaciers melting, or heavy rains.
4) earthquakes adding loads to barely stable slope earthquake-caused liquefaction destabilizing slopes
5) volcanic eruptions
6) Landslides are aggravated by human activities, such as deforestation, cultivation and construction, which destabilize the already fragile slopes.
7) vibrations from machinery or traffic.
8) blasting

## Q30. Direction for this question:

Given below are two statements (a) and (b) followed by two conclusions (i) and (ii). Considering the statements to be true, indicate which of the following conclusions logically follow from the given statements by selecting one of the four response alternatives given below the conclusion :

## Statements:

(a) all businessmen are wealthy.
(b) all wealthy people are hard working.

## Conclusions:

(i) All businessmen are hard working.
(ii) All hardly working people are not wealthy
(A) Only (i) follows
(B) Only (ii) follows
(C) Only (i) and (ii) follows
(D) Neither (i) nor (ii) follows

Answer: A
Q31. Using websites to pour out one's grievances is called:
(A) cyberventing
(B) cyber ranting
(C) web hate
(D) web plea

Answer: A
Q32. In web search, finding a large number of documents with very little relevant information is termed:
(A) poor recall
(B) web crawl
(C) poor precision rate
(D) poor web response

Answer: A
Q33. The concept of connect intelligence is derived from:
(A) virtual reality
(B) fuzzy logic
(C) bluetooth technology
(D) value added networks

## Answer: D

Q34. Use of an ordinary telephone as an Internet appliance is called:
(A) voice net
(B) voice telephone
(C) voice line
(D) voice portal

Answer: C

Q35. Video transmission over the Internet that looks like delayed live casting is called:
(A) virtual video
(B) direct broadcast
(C) video shift
(D) real-time video

Answer: D

## Q36. Which is the smallest North-east State in India?

(A) Tripura
(B) Meghalaya
(C) Mizoram
(D) Manipur

Answer: A
The Seven Sister states are the contiguous states of Arunachal Pradesh, Assam, Meghalaya, Manipur, Mizoram, Nagaland and Tripura in northeastern India. TRIPURA: A SMALL STATE OF NORTH-EAST INDIA
Tripura, in northeastern India is the third smallest state, after Sikkim and Goa. Tripura was ruled by kings of the Manikya dynasty until 1949 when it became part of the Indian Union
Area : 10,491 Sq.Km.
Meghalaya -----> 22,429 Sq.Km
Manipur ---------> 22,327 Sq.Km
Mizoram -------> 21,087 Sq.Km
Q37. Tamilnadu coastal belt has drinking water shortage due to:
(A) high evaporation
(B) sea water flooding due to tsunami
(C) over exploitation of ground water by tube wells
(D) seepage of sea water

Answer: D
With increasing exploitation of ground water, seepage of seawater into the
earth takes place, reducing sea water level.
Coastal environment plays a vital role in nation's economy by virtue of the resources, productive habitats and rich biodiversity. India has a coastline of about $7,500 \mathrm{kms}$. The coastline of Tamil Nadu has a length of about 1076 kms constitutes about $15 \%$ of the total coastal length of India and stretches along the Bay of Bengal, Indian Ocean and Arabian Sea.

## Q38. While all rivers of Peninsular India flow into the Bay of Bengal, Narmada and Tapti flow into the Arabian Sea because these two rivers:

(A) Follow the slope of these rift valleys
(B) The general slope of the Indian peninsula is from east to west
(C) The Indian peninsula north of the Satpura ranges, is tilted towards the west
(D) The Indian peninsula south of the satpura ranges is tilted towards east

## Answer: A

In the Deccan region, most of the major river systems flowing generally in east direction fall into Bay of Bengal. The major east flowing rivers are Godavari, Krishna, Cauvery, Mahanadi, etc. Narmada and Tapti are major West flowing rivers.

Q39. Soils in the Mahanadi delta are less fertile than those in the Godavari delta because of:
(A) erosion of top soils by annual floods
(B) inundation of land by sea water
(C) traditional agriculture practices
(D) the derivation of alluvial soil from red-soil hinterland

## Answer: A

The Mahanadi was notorious for its devastating floods for much of recorded history. Thus it was called 'the sorrow of Orissa'. However the construction of the Hirakud Dam has greatly altered the situation. The Godavari is the second longest river in India after the river Ganges. The frequent drying up of the Godavari river in the drier months has been a matter of great concern. Indiscriminate damming along the river has been cited as an obvious reason.

Q40. Which of the following institutions in the field of education is set up by the MHRD Government of India?
(A) Indian council of world Affair, New Delhi
(B) Mythic Society, Bangalore
(C) National Bal Bhawn, New Delhi
(D) India International Centre, New Delhi

## Answer: C

The MHRD is responsible for the development of human resources. The ministry is divided into two departments: the Department of School Education and Literacy, which deals with primary and secondary education, adult education and literacy, and the Department of Higher Education, which deals with university education, technical education, scholarship etc. The erst while Ministry of Education now functions under these two departments, as of 26 September 1985. National Bal Bhavan is an institution which aims at enhancing the creative potential of children by providing them various activities, opportunities and common platform to interact, experiment, create and perform according to their age, aptitude and ability. It offers a barrier-free environment with immense possibilities of innovation, minus any stress or strain, it caters to children between the age group of 5 to 16 years. Bal Bhavan is an autonomous body under the Ministry of Human Resource Development (MHRD).

Q41. Assertion (A): Aerosols have potential for modifying climate Reason (R): Aerosols interact with both short waves and radiation
(A) Both (A) and (R) are true, and (R) is the correct explanation of (A)
(B) Both (A) and (R) are true, but (R) is not the correct explanation of (A)
(C) (A) is true, but (R) is false
(D) (A) is false, but (R) is true

## Answer: A

## Q42. 'SITE' stands for:

(A) System for International technology and Engineering
(B) Satellite Instructional Television Experiment
(C) South Indian Trade Estate
(D) State Institute of Technology and Engineering

## Answer: B

SITE : Satellite Instructional Television Experiment ( Indian Space Research Organisation). The SITE was an experimental satellite communications project
launched in India in 1975, designed jointly by NASA and the Indian Space Research Organization (ISRO). The project made available informational television programmes to rural India. The main objectives of the experiment were to educate the poor people of India on various issues via satellite broadcasting, and also to help India gain technical experience in the field of satellite communications. The experiment ran for one year from 1 August 1975 to 31 July 1976, covering more than 2400 villages in 20 districts of six Indian states and territories. (Andhra Pradesh, Bihar, Karnataka, Madhya Pradesh, Orissa, Rajasthan)

## Q43. What is the name of the Research station established by the Indian Government for 'Conducting Research at Antarctic?

(A) Dakshin Gangotri
(B) Yamunotri
(C) Uttari Gangotri
(D) None of the above

Answer: A
The Indian Antarctic Program is a multi-disciplinary, multi-institutional program under the control of the National Centre for Antarctic and Ocean Research, Ministry of Earth Sciences, Government of India. It was initiated in 1981 with the first Indian expedition to Antarctica. The program gained global acceptance with India's signing of the Antarctic Treaty and subsequent construction of the Dakshin Gangotri Antarctic research base in 1983, superseded by the Maitri base from 1990. Under the program, atmospheric, biological, earth, chemical, and medical sciences are studied by India, which has carried out 30 scientific expeditions to the Antarctic as of 14 October 2010 and is currently planning to build an additional research station in the region named Bharati and thus India is all set to join the elite group of nine countries which have multiple bases in Antarctica.

## Q44. Ministry of Human Resource Development (HRD) includes:

(A) Department of Elementary Education and Literacy
(B) Department of Secondary Education and Higher Education
(C) Department of Women and Child Development
(D) All the above

Answer: D
The Ministry of Human Resource Development is responsible for the development of human resources.

The ministry is divided into two departments: the Department of School Education and Literacy, which deals with primary and secondary education, adult education and literacy, and the Department of Higher Education, which deals with university education, technical education, scholarship etc.
The erstwhile Ministry of Education now functions under these two departments, as of 26 September 1985. The ministry is headed by the cabinetranked Minister of HRD, a member of the Council of Ministers. The department is divided into eight bureaus, and most the work of the department is handled through over 100 autonomous organisations under the these bureaus. University and Higher Education; Minorities Education, UGC, Education Research and Development Organisation (ERDO) Indian Council of Social Science Research (ICSSR) Indian Council of Historical Research (ICHR) Indian Council of Philosophical Research (ICPR)
Indian Institute of Advanced Studies (IIAS), Shimla Technical Education All India Council of Technical Education (AICTE) Council of Architecture (COA) 4 Indian Institutes of Information Technology (IIITs) (Allahabad, Gwalior, Jabalpur and Kancheepuram) 3 School of Planning and Architecture (SPAs) 16 Indian Institutes of Technology (IITs) 5 Indian Institutes of Science Education and Research (IISERs) 13 Indian Institutes of Management (IIMs) [9] 30 National Institutes of Technology (NITs) Sant Longowal Institute of Engineering and Technology North Eastern Regional Institute of Science and Technology (NERIST)
National Institute of Industrial Engineering (NITIE) 4 National Institutes of Technical Teachers? Training \& Research (NITTTRs)

## Q45. Parliament can legislate on matters listed in the State list:

(A) With the prior permission of the President.
(B) Only after the constitution is amended suitably.
(C) In case of inconsistency among State legislatures.
(D) At the request of two or more States.

## Answer: D

If the legislatures of two or more States pass a resolution to the effect that it is desirable to have a parliamentary law in any matter in the State List, then the Parliament can make law for those States (Article 252).

The following pie chart indicates the expenditure of a country on various sports during a particular year. Study the pie chart and answer it Ouestion Number 46 to 50.


Q46. The ratio of the total expenditure on football to that of expenditure on hockey is:
(A) $1: 15$
(B) $1: 1$
(C) $15: 1$
(D) $3: 20$

Answer: B
Total expenditure on football is $15 \%$
Total expenditure on Hocky is $15 \%$
Therefore, The ratio of the total expenditure on football to that of expenditure on hockey is $15 \%: 15 \%$ i.e $1: 1$

Q47. If the total expenditure on sports during the year was Rs. $\mathbf{1 , 2 0 , 0 0 0 , 0 0}$ how much was spent on basket ball?
(A) Rs. 9,50,000
(B) Rs. $10,00,000$
(C) Rs. $12,00,000$
(D) Rs. $15,00,000$

Answer: D
Total expenditure on sports during the year was Rs. $1,20,000,00$ i.e 1005 total expenditure on Basket Ball is $12.5 \%$
i.e $12.5 \%$ of $1,20,000,00=1,20,000,00 * 12.5 / 100=15,00,000$

Q48. The chart shows that the most popular game of the country is :
(A) Hockey
(B) Football
(C) Cricket
(D) Tennis

Answer: C
Cricket 25 \%, Football 15 \%, Hockey 15 \%, Golf 12.5 \%, Basket Ball 12.5 $\%$, Tennis $10 \%$ and other $10 \%$.

Q49. Out of the following country's expenditure is the same on :
(A) Hockey and Tennis
(B) Golf and Basket ball
(C) Cricket and Football
(D) Hockey and Golf

Answer: B
Cricket 25 \%, Football 15 \%, Hockey 15 \%, Golf 12.5 \%, Basket Ball 12.5
$\%$, Tennis $10 \%$ and other $10 \%$.
Q50. If the total expenditure on sport during the year was Rs.
$1,50,00,000$ the expenditure on cricket and hockey together was:
(A) Rs. $60,00,000$
(B) Rs. $50,00,000$
(C) Rs. 37,50,000
(D) Rs. $25,00,000$

## Answer: A

If the total expenditure on sport during the year was Rs. $1,50,00,000$. The expenditure on cricket is $25 \%$ i.e $1,50,00,000 * 25 / 100=3750000$. The expenditure on Hockey is $15 \%$ i.e $1,50,00,000 * 15 / 100=2250000$. Total Expenture on Cricket and Hockey $=3750000+2250000=6000000$.

## 4. Paper - I December - 2006

Q1. Which of the following is not instructional material ?
(A) Over Head Projector
(B) Audio Casset
(C) Printed Material
(D) Transparency
Answer: A
"Instructional material" means content that conveys the essential knowledge and skills of a subject in the public school curriculum through a medium or a combination of media for conveying information to a student. The term includes abook, supplementary materials, a combination of a book, workbook, and supplementary materials, computer software, magnetic media, DVD, CD-ROM, computer courseware, on-line services, or an electronic medium, or other means of conveying information to the student or otherwise contributing to the learning process through electronic means, including open-source instructional material.

## Q2. Which of the following statement is not correct ?

(A) Lecture Method can develop reasoning
(B) Lecture Method can develop knowledge
(C) Lecture Method is one way process
(D) During Lecture Method students are passive

Answer: A
Q3. The main objective of teaching at Higher Education Level is :
(A) To prepare students to pass examination
(B) To develop the capacity to take decisions
(C) To give new information
(D) To motivate students to ask questions during lecture

Answer: B

Q4. Which of the following statement is correct ?
(A) Reliability ensures validity
(B) Validity ensures reliability
(C) Reliability and validity are independent of each other
(D) Reliability does not depend on objectivity

## Answer: B

These two terms, reliability and validity, are often used interchangeably when they are not related to statistics. When critical readers of statistics use these terms, however, they refer to different properties of the statistical or experimental method.
Reliability is another term for consistency. If one person takes the same personality test several times and always receives the same results, the test is reliable.
A test is valid if it measures what it is supposed to measure. If the results of the personality test claimed that a very shy person was in fact outgoing, the test would be invalid.
Reliability and validity are independent of each other.
A measurement maybe valid but not reliable, or reliable but not valid. Suppose your bathroom scale was reset to read 10 pound lighter. The weight it reads will be reliable(the same every time you step on it) but will not be valid, since it is not reading your actual weight.

## Q5. Which of the following indicates evaluation ?

(A) Ram got 45 marks out of 200
(B) Mohan got 38 percent marks in English
(C) Shyam got First Division in final examination
(D) All the above

Answer: D

## Q6. Research can be conducted by a person who :

(A) has studied research methodology
(B) holds a postgraduate degree
(C) possesses thinking and reasoning ability
(D) is a hard worker

Answer: A
Q7. Which of the following statements is correct?
(A) Objectives of research are stated in first chapter of the thesis
(B) Researcher must possess analytical ability
(C) Variability is the source of problem
(D) All the above

Answer: D

## Q8. Which of the following is not the Method of Research?

(A) Observation
(B) Historical
(C) Survey
(D) Philosophical

Answer: A
There are two types of research which can be done to develop a thesis or dissertation:
Practical Research: The practical approach consists of the empirical study of the topic under research and chiefly consists of hands on approach. This involves first hand research in the form of questionnaires, surveys, interviews, observations and discussion groups.
Theoretical Research: A non empirical approach to research, this usually involves perusal of mostly published works like researching through archives of public libraries, court rooms and published academic journals

Q9. Research can be classified as :
(A) Basic, Applied and Action Research
(B) Quantitative and Qualitative Research
(C) Philosophical, Historical, Survey and Experimental Research
(D) All the above

Answer: D
Classification of Research by Purpose - Basic v/s Applied research Research and development - Evaluative research
Classification of Research by Method - Historical research - Descriptive research - Experimental research

## Q10. The first step of research is :

(A) Selecting a problem
(B) Searching a problem
(C) Finding a problem
(D) Identifying a problem

## Answer: B

Steps in conducting research
Research is often conducted using the hourglass model structure of research.

The hourglass model starts with a broad spectrum for research, focusing in on the required information through the method of the project, then expands the research in the form of discussion and results.
The major steps in conducting research are:
Identification of research problem
Literature review
Specifying the purpose of research
Determine specific research questions
Specification of a Conceptual framework - Usually a set of hypotheses
Choice of a methodology (for data collection)
Data collection
Verify Data
Analyzing and interpreting the data
Reporting and evaluating research
Communicating the research findings and, possibly, recommendations
Read the following passage and answer the question nos. 11 to 15:
After almost three decades of contemplating Swarovski-encrusted navels on increasing flat abs, the Mumbai film industry is on a discovery of India and itself. With budgets of over 30 crore each, four soon to be released movies by premier directors are exploring the idea of who we are and redefining who the other is. It is a fundamental question which the bling-bling, glam-sham and disham-disham tends to avoid. It is also a question which binds an audience when the lights go dim and the projector rolls : as a nation, who are we ? As a people, where are we going?
The Germans coined a word for it, zeitgeist, which perhaps Yash Chopra would not care to pronounce. But at 72 , he remains the person who can best capture it. After being the first to project the diasporic Indian on screen in Lamhe in 1991, he has returned to his roots in a new movie. Veer Zaara, set in 1986, where Pakistan, the traditional other, the part that got away, is the lover and the saviour. In Subhas Ghai's Kisna, set in 1947, the other is the English woman. She is not a memsahib, but a mehbooba. In Ketan Mehta's The Rising, the East India Englishman is not the evil oppressor of countless cardboard characterisations, which span the spectrum from Jewel in the Crown to Kranti, but an honourable friend.
This is Manoj Kumar's Desh Ki dharti with a difference : there is culture, not
contentious politics; balle balle, not bombs : no dooriyan (distance), only nazdeekiyan
(closeness).
All four films are heralding a new hero and heroine. The new hero is fallible and vulnerable, committed to his dharma, but also not afraid of failure - less of a boy and more of a man. He even has a grown up name : Veer Pratap Singh in Veer-Zaara and Mohan Bhargav in Swades. The new heroine is not a babe, but often a bebe, dressed in traditional Punjabi clothes, often with the stereotypical body type as well, as in Bride and Prejudice of Gurinder Chadha.

Q11. Which word Yash Chopra would not be able to pronounce ?
(A) Bling + bling
(B) Zeitgeist
(C) Montaz
(D) Dooriyan

Answer: B

## Q12. Who made Lamhe in 1991 ?

(A) Subhash Ghai
(B) Yash Chopra
(C) Aditya Chopra
(D) Sakti Samanta

Answer: B
Q13. Which movie is associated with Manoj Kumar ?
(A) Jewel in the Crown
(B) Kisna
(C) Zaara
(D) Desh Ki dharti

Answer: D
Q14. Which is the latest film by Yash Chopra ?
(A) Deewar
(B) Kabhi Kabhi
(C) Dilwale Dulhaniya Le Jayenge
(D) Veer Zaara

Answer: D

## Q15. Which is the dress of the heroine in Veer-Zaara?

(A) Traditional Gujarati Clothes
(B) Traditional Bengali Clothes
(C) Traditional Punjabi Clothes
(D) Traditional Madrasi Clothes

Answer: C

Q16. Which one of the following can be termed as verbal communication?
(A) Prof. Sharma delivered the lecture in the class room.
(B) Signal at the cross-road changed from green to orange.
(C) The child was crying to attract the attention of the mother.
(D) Dipak wrote a letter for leave application.

Answer: C
Verbal communication Effective verbal or spoken communication is dependent on a number of factors and cannot be fully isolated from other important interpersonal skills such as non-verbal communication, listening skills and clarification. Human language can be defined as a system of symbols and the grammars (rules) by which the symbols are manipulated. The word "language" also refers to common properties of languages. Language learning normally occurs most intensively during human childhood. The communication is two way process instead of one way.

## Q17. Which is the $\mathbf{2 4}$ hours English Business news channel in India ?

(A) Zee News
(B) NDTV $24 \times 7$
(C) CNBC
(D) India News

Answer: C
CNBC Awaaz is a Hindi business news TV channel in India. The channel is a joint venture between CNBC and Television Eighteen India Limited (TV18) based in New Delhi. In 2003, they launched two 24-hour news channels NDTV 24x7 in English and NDTV India in Hindi. Later they also launched NDTV Profit, a 24 -hour business news channel in 2005, which became close to bankruptcy.

## Q18. Consider the following statements in communication :

(i) Hema Malini is the Chairperson of the Children's Film Society, India.
(ii) Yash Chopra is the Chairman of the Central Board of Film Certification of India.
(iii) Sharmila Tagore is the Chairperson of National Film Development Corporation.
(iv) Dilip Kumar, Raj Kapoor and Preeti Zinta have all been recipients of

Dada Saheb Phalke Award.
Which of the statements given above is/are correct?
(A) (i) and (iii)
(B) (ii) and (iii)
(C) (iv) only
(D) (iii) only

Answer: No option is correct
Communication is the purposeful activity of information exchange between two or more participants in order to convey or receive the intended meanings through a shared system of signs and semiotic rules. The basic steps of communication are the forming of communicative intent, message composition, message encoding, transmission of signal, reception of signal, message decoding and finally interpretation of the message by the recipient.

## Explanation:

Children's Film Society of India (CFSI) is a nodal organization of Government of India that produces children's films and various TV programs in various Indian languages. Established in 1955, CFSI functions comes under the Ministry of Information and Broadcasting, Government of India and is headquartered in Mumbai. Veteran actor Mukesh Khanna is the present chairperson (check who is now) of the CFSI.
Central Board of Film Certification (CBFC) (often referred to as the Censor Board) headquarters at Mumbai is a Statutory body under Ministry of Information and Broadcasting, regulating the public exhibition of films under the provisions of the Cinematograph Act 1952. Films can be publicly exhibited in India only after they have been certified by the Central Board of Film Certification. Film producer Pahlaj Nihalani is the present chairperson (check who is now) of the CBFC.
National Film Development Corporation of India (NFDC) based in Mumbai is the central agency established to encourage the good cinema movement in the country. The primary goal of the NFDC is to plan, promote and organize an integrated and efficient development of the Indian film industry and foster excellence in cinema. The NFDC (and its predecessor the Film Finance Corporation) has so far funded / produced over 300 films.

Q19. Which of the following pair is not correctly matched ?
(A) N. Ram : The Hindu
(B) Barkha Dutt : Zee
(C) Pranay Roy : NDTV $24 \times 7$
(D) Prabhu Chawla : Aaj taak

## Answer: B

Barkha Dutt is an Indian television journalist and columnist. She works as a consulting editor with NDTV. Dutt gained prominence for her reportage of the Kargil War.

Q20. "Because you deserve to know" is the punchline used by :
(A) The Times of India
(B) The Hindu
(C) Indian Express
(D) Hindustan Times

Answer: D
The Times of India - Let the truth prevail. BUSINESS INDIA-The Magazine of the Corporate World.
BUSINESS TODAY-For Managing Tomorrow.
BUSINESS STANDARD-When you're Sure.
CHIP-Intelligent Computing.
DIGIT- Your Technology Navigator.
BUSINESS WORLD - Play the Game.
FILM FARE - Romancing the Stars
The Indian EXPRESS- Journalism of Courage.
THE ECONOMIC TIMES-The Power of Knowledge.
THE ECONOMIST-great minds think a like.
HINDUSTAN TIMES-The Name India trusts for News.
THE DAILY TELEGRAPH- Read a Bestseller everyday
MALAYALA MANORMA- Nobody delivers kerala better
MATHRUBHUMI - The national daily in Malayalam
SPORTSTAR - The Sportier Tabloid
Q21. In the sequence of numbers $8,24,12, X, 18,54$ the missing number X is :
(A) 26
(B) 24
(C) 36
(D) 32

## Answer: C

In the sequence of numbers
8, 24, 12, X, 18, 54
$8 * 3=24,12 * 3=36,18 * 3=54$, i.e multiple of 3 .

Q22. If A stands for 5, B for 6, C for 7, D for 8 and so on, then the following numbers stand for $17,19,20,9$ and 8 :
(A) PLANE
(B) MOPED
(C) MOTOR
(D) TONGA

Answer: B
If A stands for $5, \mathrm{~B}$ for $6, \mathrm{C}$ for $7, \mathrm{D}$ for 8 and so on, then
$\mathrm{E}=9, \mathrm{~F}=10, \mathrm{G}=11, \mathrm{H}=12, \mathrm{I}=13, \mathrm{~J}=14, \mathrm{~K}=15, \mathrm{~L}=16, \mathrm{M}=17, \mathrm{~N}=18, \mathrm{O}=19, \mathrm{P}=20$.
Therefore 17, 19, 20, 9, 8

$$
=M \quad O \quad P \quad E \quad D .
$$

Q23. The letters in the first set have certain relationship. On the basis of this relationship what is the right choice for the second set?
AST : BRU : : NQV : ?
(A) ORW
(B) MPU
(C) MRW
(D) OPW

Answer: D
AST : BRU : : NQV : ?
The Relationship show that First letter DECODE with next alphabet, and second letter DECODE with the previous alphabets and so on.
Therefore N --> O, Q --> P, and V --> W i.e OPW.

Q24. In a certain code, PAN is written as 31 and PAR as 35 . In this code PAT is written as:
(A) 30
(B) 37
(C) 38
(D) 39

Answer: B
According to the position number of alphabets
$\mathrm{A}=1, \mathrm{P}=16, \mathrm{~T}=20$
Hence, PAT $=16+1+20=37$.
Q25. The sides of a triangle are in the ratio of $1 / 2: 1 / \mathbf{3}: 1 / 4$. If its perimeter is 52 cm , the length of the smallest side is :
(A) 9 cm
(B) 10 cm
(C) 11 cm
(D) 12 cm

Answer: D
Explanation:

Sides of a triangle are in the ratio of $\mathrm{a}: \mathrm{b}: \mathrm{c}=1 / 2: 1 / 3: 1 / 4$ $=12 / 2:{ }^{12} / 3:{ }^{12} / 4=6: 4: 3$
Let the lengths of three sides of the triangle be $6 x, 4 x, 3 x$
Perimeter of the triangle $=\mathrm{a}+\mathrm{b}+\mathrm{c} \Rightarrow 52 \mathrm{~cm}=6 \mathrm{x}+4 \mathrm{x}+3 \mathrm{x}$
$\mathrm{x}=52 / 13=4 \mathrm{~cm}$
length of the smallest side $=3 x=3 \times 4=12 \mathrm{~cm}$

## Q26. Which one of the following statements is completely non-

 sensical ?(A) He was a bachelor, but he married recently.
(B) He is a bachelor, but he married recently.
(C) When he married, he was not a bachelor.
(D) When he was a bachelor, he was not married.

## Answer: B

## Q27. Which of the following statements are mutually contradictory?

(i) All flowers are not fragrant.
(ii) Most flowers are not fragrant.
(iii) None of the flowers is fragrant.
(iv) Most flowers are fragrant.

Choose the correct answer from the code given below :

## Code :

(A) (i) and (ii)
(B) (i) and (iii)
(C) (ii) and (iii)
(D) (iii) and (iv)

Answer: D

Q28. Which of the following statements say the same thing ?
(i) "I am a teacher" (said by Arvind)
(ii) "I am a teacher" (said by Binod)
(iii) "My son is a teacher" (said by Binod's father)
(iv) "My brother is a teacher" (said by Binod's sister)
(v) "My brother is a teacher" (said by Binod's only sister)
(vi) "My sole enemy is a teacher" (said by Binod's only enemy)

Choose the correct answer from the code given below :

## Code :

(A) (i) and (ii)
(B) (ii), (iii), (iv) and (v)
(C) (ii) and (vi)
(D) (v) and (vi)

Answer: B

## Q29. Which of the following are correct ways of arguing ?

(i) There can be no second husband without a second wife.
(ii) Anil is a friend of Bob, Bob is a friend of Raj, hence Anil is a friend of Raj.
(iii) A is equal to $\mathrm{B}, \mathrm{B}$ is equal to C , hence A is equal to C .
(iv) If everyone is a liar, then we cannot prove it.

Choose the correct answer from the code given below :

## Code :

(A) (iii) and (iv)
(B) (i), (iii) and
(iv)
(C) (ii), (iii) and (iv)
(D) (i), (ii), (iii) and (iv)

Answer: A

Q30. Which of the following statement/s are ALWAYS FALSE?
(i) The sun will not rise in the East some day.
(ii) A wooden table is not a table.
(iii) Delhi city will be drowned under water.
(iv) Cars run on water as fuel.

Choose the correct answer from the code given below :
Code :
(A) (i), (iii) and (iv)
(B) Only (iii)
(C) (i), (ii) and (iii)
(D) (ii) alone

Answer: D

Study the following graph and answer question numbers 31 to 33 :


Q31. In the year 2000, which of the following Companies earned maximum percent profit?
(A) a
(B) $b$
(C) d
(D) f

Answer: D
Graph shows in year 2000 " f " company earned maximum percent profit i.e 60 \%.

Q32. In the year 2001, which of the following Companies earned minimum percent profit ?
(A) a
(B) c
(C) d
(D) e

Answer: A
Graph shows in year 2001 "a" company earned mimimum percent profit i.e 40 \%.

Q33. In the years 2000 and 2001, which of the following Companies earned maximum average percent profit?
(A) f
(B) e
(C) d
(D) b

Answer: A
Graph shows in year 2000 and 2001 " f " company earned maximum average percent profit i.e $60+65=125 / 2=62.5 \%$.

Q34. Human Development Report for 'each' of the year at global level has been published by:
(A) UNDP
(B) WTO
(C) IMF
(D) World Bank

Answer: A

## Explanation:

The United Nations Development Programme (UNDP) headquartered in New York is the United Nations' global development network. UNDP advocates for change and connects countries to knowledge, experience and resources to help people build a better life. It provides expert advice, training, and grant support to developing countries.
The UNDP Human Development Report Office publishes an annual Human Development Report to measure and analyse developmental progress.

Q35. The number of students in four classes $A, B, C, D$ and their respective mean marks obtained by each of the class are given below
:

|  | Class A | Class B | Class C | Class D |
| :---: | :---: | :---: | :---: | :---: |
| Number of <br> students | 10 | 40 | 30 | 20 |
| Arithmetic <br> mean | 20 | 30 | 50 | 15 |

The combined mean of the marks of four classes together will be :
(A) 32
(B) 50
(C) 20
(D) 15

Answer: A

## Explanation:

Formula to find Combined mean, $\mathrm{X}^{\prime}=\left(\mathrm{N}_{1} \mathrm{X}_{1}{ }^{\prime}+\mathrm{N}_{2} \mathrm{X}_{2}{ }^{\prime}\right) / \mathrm{N}_{1}+\mathrm{N}_{2}$
Here, Combined mean $=(10 \times 20+40 \times 30+30 \times 50+20 \times 15) /(10+40+30+20)$

$$
=3200 / 100=32
$$

## Q36. LAN stands for :

(A) Local And National
(B) Local Area Network
(C) Large Area Network
(D) Live Area Network

Answer: B

## Q37. Which of the following statement is correct ?

(A) Modem is a software
(B) Modem helps in stabilizing the voltage
(C) Modem is the operating system
(D) Modem converts the analog signal into digital signal and vice-versa Answer: D

Q38. Which of the following is the appropriate definition of a computer?
(A) Computer is a machine that can process information.
(B) Computer is an electronic device that can store, retrieve and process both qualitative and quantitative data quickly and accurately.
(C) Computer is an electronic device that can store, retrieve and quickly process only quantitative data.
(D) Computer is a machine that can store, retrieve and process quickly and accurately only qualitative information
Answer: B
Q39. Information and Communication Technology includes :
(A) On line learning
(B) Learning through the use of

EDUSAT
(C) Web Based Learning (D) All the above

Answer: D
Q40. Which of the following is the appropriate format of URL of email?
(A) www_mail.com
(B) www@mail.com
(C) WWW@mail.com
(D) www.mail.com

## Answer: B

## Q41. The most significant impact of volcanic eruption has been

 felt in the form of :(A) change in weather
(B) sinking of islands
(C) loss of vegetation
(D) extinction of animals

Answer: A
Eruptions are unstoppable, and a very large one is potentially long lasting (several days of intense explosive output from the volcano). Further, the effects are both immediate (widespread ash fall, pyroclastic flows) and also of
longer-duration (due atmospheric aerosols, re-sedimentation of fresh deposits by lahar activity), persisting and presenting problems for years afterwards. In these ways, the hazards posed by explosive eruptions differ from those due to all other natural disasters. It will necessary to develop strategies to minimize and cope with the effects of future major eruptions. The economic cost of recovery from any future large-scale eruptions will be a major burden on society. Finally, as airborne ash and atmospheric sulphate aerosols will bring about the most widespread, long-lasting and generally hazardous effects of the next large explosive eruption, it will be essential to carry out further studies with global circulation atmospheric models to evaluate their potential effects on climate and weather, and other potential feedbacks with global environmental cycles. Some currently unanticipated consequences will surely be found.

## Q42. With absorption and decomposition of $\mathrm{CO}_{2}$ in ocean water beyond desired level, there will be :

(A) decrease in temperature
(B) increase in salinity
(C) growth of phytoplankton
(D) rise in sea level

## Answer: C

Phytoplankton are photosynthesizing microscopic organisms that inhabit the upper sunlit layer of almost all oceans and bodies of fresh water. They are agents for "primary production," the creation of organic compounds from carbon dioxide dissolved in the water, a process that sustains the aquatic food web. Phytoplankton obtain energy through the process of photosynthesis and must therefore live in the well-lit surface layer (termed the euphotic zone) of an ocean, sea, lake, or other body of water. Phytoplankton account for half of all photosynthetic activity on Earth. Their cumulative energy fixation in carbon compounds (primary production) is the basis for the vast majority of oceanic and also many freshwater food webs (chemosynthesis is a notable exception). The effects of anthropogenic warming on the global population of phytoplankton is an area of active research.

## Explanation:

Phytoplankton are microscopic organisms that live in watery environments, both salty and fresh. Some phytoplankton are bacteria, some are protists, and most are single-celled plants. When conditions are right, phytoplankton
populations can grow explosively, a phenomenon known as a bloom. Phytoplankton can also be the harbingers of death or disease. Certain species of phytoplankton produce powerful biotoxins. These toxic blooms can kill marine life and people who eat contaminated seafood.

Q43. Arrange column II in proper sequence so as to match it with column I and choose the correct answer from the code given below :

Column I
Water Quality
(a) Neutral
(b) Moderately acidic
(c) Alkaline
(d) Injurious

Column II
pH Value
(i) 5
(ii) 7
(iii) 4
(iv) 8

## Code :

(a) (b) (c) (d)
(A) (ii) (iii) (i) (iv)
(B) (i) (iii) (ii) (iv)
(C) (ii) (i) (iv) (iii)
(D) (iv) (ii) (iii) (i)

Answer: C
PH indicates the sample's acidity but is actually a measurement of the potential activity of hydrogen ions $(\mathrm{H}+)$ in the sample. PH measurements run on a scale from 0 to 14 , with 7.0 considered neutral. Solutions with a PH below 7.0 are considered acids. Solutions with a pH above 7.0 , up to 14.0 are considered bases. The normal range for pH in surface water systems is 6.5 to 8.5 , and the pH range for groundwater systems is between 6 to 8.5 . Alkalinity is a measure of the capacity of the water to resist a change in pH that would tend to make the water more acidic.

## Explanation:

pH is a measure of how acidic/basic water is. The range goes from $0-14$, with 7 being neutral. pHs less than 7 are acidic, whereas pHs greater than 7 are alkaline (basic).

Q44. The maximum emission of pollutants from fuel sources in India is caused by :
(A) Coal
(B) Firewood
(C) Refuse burning
(D) Vegetable waste product

## Answer: B

As many as 115,000 people die in India each year from coal-fired power plant pollution, costing the country about $\$ 4.6$ billion, according to a groundbreaking new study released today. Coal is the primary fuel for electricity generation in India and its usage is continuously increasing to meet the energy demands of the country.

Q45. The urbanisation process accounts for the wind in the urban centres during nights to remain :
(A) faster than that in rural areas
(B) slower than that in rural areas
(C) the same as that in rural areas
(D) cooler than that in rural areas

Answer: B
Q46. The University Grants Commission was constituted on the recommendation of :
(A) Dr. Sarvapalli Radhakrishnan Commission
(B) Mudaliar Commission
(C) Sargent Commission
(D) Kothari Commission

Answer: A or C
The University Grants Commission (UGC) of India is a statutory body set up by the Indian Union government in 1956, and is charged with coordination, determination and maintenance of standards of higher education. It provides recognition to universities in India, and disburses funds to such recognized universities and colleges. Prof. Ved Prakash is the incumbent Chairman of UGC, India. Its headquarters is in New Delhi, and six regional centres in Pune, Bhopal, Kolkata, Hyderabad, Guwahati and Bangalore. After independence, the University Education Commission was set up in 1948 under the Chairmanship of S. Radhakrishnan and it recommended that the UGC be reconstituted on the general model of the University Grants Commission of the United kingdom. UGC was formally inaugurated by Maulana Abul Kalam Azad, the Minister of Education, Natural Resources and Scientific Research on

28 December 1953.

## Explanation:

The University Grants Commission (UGC) of India is a statutory body set up by the Indian Union government in accordance to the UGC Act 1956 under Ministry of Human Resource Development, and is charged with coordination, determination and maintenance of standards of higher education. It provides recognition to universities in India, and disburses funds to such recognised universities and colleges. Its headquarters is in New Delhi, and six regional centres in Pune, Bhopal, Kolkata, Hyderabad, Guwahati and Bangalore.
The first attempt to formulate a national system of education in India came In 1944, with the Report of the Central Advisory Board of Education on Post War Educational Development in India, also known as the Sargeant Report. It recommended the formation of a University Grants Committee, which was formed in 1945 to oversee the work of the three Central Universities of Aligarh, Banaras and, Delhi. In 1947, the Committee was entrusted with the responsibility of dealing with all the then existing Universities. After independence, the University Education Commission was set up in 1948 under the Chairmanship of S. Radhakrishnan and it recommended that the UGC be reconstituted on the general model of the University Grants Commission of the United kingdom.

## Q47. Which one of the following Articles of the Constitution of India safeguards the rights of Minorities to establish and run educational institutions of their own liking ?

(A) Article 19
(B) Article 29
(C) Article 30
(D) Article 31
Answer: C

Article 30. Right of minorities to establish and administer educational institutions. 1) All minorities, whether based on religion or language, shall have the right to establish and administer educational institutions of their choice. Article 29. Protection of interests of minorities. 1) Any section of the citizens residing in the territory of India or any part thereof having a distinct language, script or culture of its own shall have the right to conserve the same. 2) No citizen shall be denied admission into any educational institution maintained by the State or receiving aid out of State funds on grounds only of religion, race, caste, language or any of them. Article 19. Protection of certain
rights regarding freedom of speech, etc.? 1) All citizens shall have the right? To freedom of speech and expression, to assemble peaceably and without arms, to form associations or unions, to move freely throughout the territory of India; Article 31. Saving of laws providing for acquisition of estates, etc.

## Explanation:

## Article 30: Right of minorities to establish and administer educational institutions.

All minorities, whether based on religion or language, shall have the right to establish and administer educational institutions of their choice.

Q48. Match List - I (Institutions) with List - II (Functions) and select the correct answer by using the code given below :

## List - I (Institutions)

(a) Parliament
(b) C \& A.G.
(c) Ministry of Finance
(d) Executing Departments
(v) Justification of Income

## Code :

(a) (b) (c) (d)
(A) (iii) (iv) (ii) (i)
(B) (ii) (iv) (i) (iii)
(C) (v) (iii) (iv) (ii)
(D) (iv) (ii) (iii) (v)

Answer: B

Q49. Foundation training to the newly recruited IAS
(Probationers) is imparted by :
(A) Indian Institute of Public Administration
(B) Administrative Staff College of India
(C) L.B.S. National Academy of Administration
(D) Centre for Advanced Studies

Answer: C
On April 15, 1958 the then Home Minister announced in the Lok Sabha a proposal to set up a National Academy of Administration, where training would be given to all the recruits of the Civil Services. The Ministry of Home

Affairs decided to amalgamate the IAS Training School, Delhi and the IAS Staff College, Shimla to form a National Academy of Administration at Mussoorie. The Academy was set up in 1959 and was called the 'National Academy of Administration'. The Indian Institute of Public Administration (IIPA) was established in 1954 as an Autonomous Society. The major activities of the Institute are: Training, Research, Advisory services, and Information dissemination and exchange. Through six decades of experience in research, training and rendering policy advice, conferences and seminars, case studies and publications, the IIPA has made significant contribution to public administration at the Union, State and Local levels. The Centre for Advanced Studies in India (CASII), is a registered, independent, non-profit institution set up for the promotion of excellence in higher research and for academic cooperation.

## Explanation:

The Lal Bahadur Shastri National Academy of Administration (LBSNAA) is a research and training institute on public policy and public administration in India. It is located in the remote town of Mussoorie, Uttarakhand. The academy's main purpose is to train civil service officers of the three All India Services namely Indian Administrative Service, Indian Police Service and the Indian Forest Service; and all Group-A Central Services.

## Q50. Electoral disputes arising out of Presidential and Vice-

 Presidential Elections are settled by:(A) Election Commission of India
(B) Joint Committee of

Parliament
(C) Supreme Court of India
(D) Central Election Tribunal

Answer: C
According to Article 71 of the Constitution, all doubts and disputes arising out of or in connection with the election of a President or Vice-President shall be inquired into and decided by the Supreme Court. Further, according to section 14 of the Presidential and Vice-Presidential Elections Act, 1952, an election petition can be filed before the Supreme Court.

## 5. Paper - I June - 2007

Q1. Teacher uses visual-aids to make learning:
(A) simple
(B) more knowledgeable
(C) quicker
(D) interesting

Answer: D
Impact of Audio Visual aids:

- Makes learning easy and permanent.
- Adds creativity.
- More involvement of students in classroom.
- Healthy relation with environment.

Q2. The teacher's role at the higher educational level is to:
(A) provide information to students
(B) promote self-learning in students
(C) encourage healthy competition among students
(D) help students to solve their personal problems

## Answer: B

Q3. Which one of the following teachers would you like the most:
(A) punctual
(B) having research aptitude
(C) loving and having high idealistic philosophy
(D) who often amuses his students

Answer: B
Q4. Micro teaching is most effective for the student-teacher:
(A) during the practice-teaching
(B) after the practice-teaching
(C) before the practice-teaching
(D) none of the above

## Answer: A

Microteaching is organized practice teaching. The goal is to give instructors
confidence, support, and feedback by letting them try out among friends and colleagues a short slice of what they plan to do with their students.

## Q5. Which is the least important factor in teaching?

(A) punishing the students
(B) maintaining discipline in the class
(C) lecturing in impressive way
(D) drawing sketches and diagrams on the black-board

Answer: A

## Q6. To test null hypothesis, a researcher uses:

(A) t test
(B) ANOVA
(C) $x^{2}$
(D) factorial analysis

## Answer: B

Analysis of variance (ANOVA) is a collection of statistical models used to analyze the differences among group means and their associated procedures (such as "variation" among and between groups), developed by statistician and evolutionary biologist Ronald Fisher. In the ANOVA setting, the observed variance in a particular variable is partitioned into components attributable to different sources of variation. In its simplest form, ANOVA provides a statistical test of whether or not the means of several groups are equal, and therefore generalizes the $t$-test to more than two groups. ANOVAs are useful for comparing (testing) three or more means (groups or variables) for statistical significance. It is conceptually similar to multiple two-sample $t$ tests, but is less conservative (results in less type I error) and is therefore suited to a wide range of practical problems.

## Explanation:

A hypothesis is a speculation or theory based on insufficient evidence that lends itself to further testing and experimentation. With further testing, a hypothesis can usually be proven true or false.
A null hypothesis is a hypothesis that says there is no statistical significance between the two variables in the hypothesis. It is the hypothesis that the researcher is trying to disprove.
An alternative hypothesis simply is the inverse, or opposite, of the null hypothesis.
Analysis of variance (ANOVA) is a collection of statistical models used to
analyze the differences among group means and their associated procedures (such as "variation" among and between groups), developed by statistician and evolutionary biologist Ronald Fisher.

## Q7. A research problem is feasible only when:

(A) it has utility and relevance
(B) it is researchable
(C) it is new and adds something to knowledge
(D) all the above

## Answer: D

Q8. Bibliography given in a research report:
(A) shows vast knowledge of the researcher
(B) helps those interested in further research
(C) has no relevance to research
(D) all the above

Answer: A

Q9. Fundamental research reflects the ability to
(A) Synthesize new ideals
(B) Expound new principles
(C) Evaluate the existing material concerning research
(D) Study the existing literature regarding various topics

## Answer: B

Q10. The study in which the investigators attempt to trace an effect is known as:
(A) Survey Research
(B) 'Ex-post Facto’ Research
(C) Historical Research
(D) Summative Research

Answer: B

## Read the following passage and answer the questions 11 to 15:

All political systems need to mediate the relationship between private wealth and public power. Those that fail risk a dysfunctional government captured by wealthy interests. Corruption is one symptom of such failure with private willingness-to-pay trumping public goals. Private individuals and business
firms pay to get routine services and to get to the head of the bureaucratic queue. They pay to limit their taxes, avoid costly regulations, obtain contracts at inflated prices and get concessions and privatized firms at low prices. If corruption is endemic, public officials - both bureaucrats and elected officials - may redesign programmes and propose public projects with few public benefits and many opportunities for private profit. Of course, corruption, in the sense of bribes, pay-offs and kickbacks, is only one type of government failure. Efforts to promote 'good governance' must be broader than anti-corruption campaigns. Governments may be honest but inefficient because no one has an incentive to work productively, and narrow elites may capture the state and exert excess influence on policy. Bribery may induce the lazy to work hard and permit those not in the inner circle of cronies to obtain benefits. However, even in such cases, corruption cannot be confined to 'functional' areas. It will be a temptation whenever private benefits are positive. It may be a reasonable response to a harsh reality but, over time, it can facilitate a spiral into an even worse situation.

Q11. The governments which fail to focus on the relationship between private wealth and public power are likely to become:
(A) Functional
(B) Dysfunctional
(C) Normal functioning
(D) Good governance

Answer: B

## Q12. One important symptom of bad governance is:

(A) Corruption
(B) High taxes
(C) Complicated rules and regulations
(D) High prices

Answer: A

Q13. When corruption is rampant, public officials always aim at many opportunities for
(A) Public benefits
(C) Private profit
(B) Public profit
(D) Corporate gains

Answer: C
Q14. Productivity linked incentives to public/private officials is one of the indicatives for:
(A) Efficient government
(B) Bad governance
(C) Inefficient government
(D) Corruption
Answer: A

## Q15. The spiralling corruption can only be contained by promoting:

(A) Private profit
campaign
(C) Good governance
backs
Answer: C

## Q16. Press Council of India is located at:

(A) Chennai
(B) Mumbai
(C) Kolkata
(D) Delhi

## Answer: D

Location of Press Council of India, Soochna Bhavan, 8-C.G.O. Complex, Lodhi Road, New Delhi-110003 The Press Council of India is a statutory body in India that governs the conduct of the print media. It is one of the most important bodies that sustain democracy, as it has supreme power in regard to the media to ensure that freedom of speech is maintained.

## Explanation:

The Press Council of India was first set up in the year 1966 by the Parliament on the recommendations of the First Press Commission with the object of preserving the freedom of the press and of maintaining and improving the standards of press in India. The present Council functions under the Press Council Act 1978. It is a statutory body in India that governs the conduct of the print media. It adjudicates the complaints against and by the press for violation of ethics and for violation of the freedom of the press respectively. Press Council of India is located at New Delhi. PresentChairman of PCI.

## Q17. Adjusting the photo for publication by cutting is technically known as:

(A) Photo cutting
(B) Photo bleeding
(C) Photo cropping
Answer: C

Photo Cropping refers to the removal of the outer parts of an image to improve framing, accentuate subject matter or change aspect ratio. Depending on the application, this may be performed on a physical photograph, artwork or film footage, or achieved digitally using image editing software. The term is common to the film, broadcasting, photographic, graphic design and printing industries.

## Q18. Feed-back of a message comes from:

(A) Satellite
(B) Media
(C) Audience
(D) Communicator

Answer: C
Feedback is your audience?s response; it enables you to evaluate the effectiveness of your message. If your audience doesn?t understand what you mean, you can tell by the response and then refine the message.
Receivers are not just passive absorbers of messages; they receive the message and respond to them. This response of a receiver to sender?s message is called Feedback.

## Q19. Collection of information in advance before designing communication strategy is known as

(A) Feed-back
(B) Feed-forward
(C) Research study
(D) Opinion poll

Answer: D
An opinion poll, sometimes simply referred to as a poll, is a survey of public opinion from a particular sample. Opinion polls are usually designed to represent the opinions of a population by conducting a series of questions and then extrapolating generalities in ratio or within confidence intervals.

## Q20. The aspect ratio of TV screen is:

(A) $4: 3$
(B) $4: 2$
(C) $3: 5$
(D) $2: 3$

Answer: A
The standard TV that's been around since the mid-50s has an aspect ratio of 4:3. That means the picture is 4 units wide for every three units of height. Meanwhile, the new HDTV standard is $16: 9$, which is 16 units of width for every 9 units of height.

Q21. Which is the number that comes next in the sequence?
$9,8,8,8,7,8,6,-$
(A) 5
(B) 6
(C) 8
(D) 4

Answer: C
Explanation:
Given sequence is $9,8,8,8,7,8,6$, Third term decrease by 1 with first, Fifth term decrease by 1 with third,
Seventh term decrease by 1 with fifth.
Second, Forth, Sixth are remain same i.e 8.
So next will 8.
Q22. If in a certain language TRIVANDRUM is coded as 25953
5475 8, how would MADRAS be coded?
(A) 834536
(B) 834538
(C) 834530
(D) 834539

Answer: A
For Example : - If in a certain language PUNCTUAL is coded as 1659862 3 then
$\mathrm{P}=1$
$\mathrm{U}=6$
$\mathrm{N}=5$
$\mathrm{C}=9$
$\mathrm{T}=8$
$\mathrm{U}=6$
$\mathrm{A}=2$
$\mathrm{L}=3$
Therefore ACTUPULN = 29861635
Q23. The question to be answered by factorial analysis of the quantitative data does not explain one of the following
(A) Is ' X ' related to ' Y '?
(B) How is ' X ' related to ' Y '?
(C) How does ' X ' affect the dependent variable ' Y ' at different levels of another independent variable ' K ' or ' M ' ?
(D) How is ' X ' by ' K ' related to ' M '?

Answer: D

Q24. January 12, 1980 was Saturday, what day was January 12, 1979:
(A) Saturday
(B) Friday
(C) Sunday
(D) Thursday

Answer: B
Explanation:
1 ordinary year $=365$ days $=(52$ weeks +1 day $)$
Hence number of odd days in 1 ordinary year $=1$.
1 leap year $=366$ days $=(52$ weeks +2 days $)$
Hence number of odd days in 1 leap year $=2$.
The year 1979 is an ordinary year, it has 1 odd day. So, the day on $12^{\text {th }}$ January 1980 is one day beyond the day on $12^{\text {th }}$ January, 1979. Here, January 12, 1980 was Saturday. So January 12, 1979 was Friday.

Q25. How many Mondays are there in a particular month of a particular year, if the month ends on Wednesday?
(A) 5
(B) 4
(C) 3
(D) None of the above

Answer: A or B
Problem is not clearly specify and possibility of Mondays in a particular month which ends on wednesday is 4 or 5 both

Q26. From the given four statements, select the two which cannot be true but yet both can be false. Choose the right pair:
(i) All men are mortal
(ii) Some men are mortal
(iii) No man is mortal
(iv) Some men are not mortal
(A) (i) and (ii)
(B) (iii) and (iv)
(C) (i) and (iii)
(D) (ii) and (iv)

Answer: D

Q27. A Syllogism must have:
(A) Three terms
(B) Four terms
(C) Six terms
(D) Five terms
Answer: A

## Q28. Copula is that part of proposition which denotes the

 relationship between:(A) Subject and predicate
(B) Known and unknown
(C) Major premise and minor premise
(D) Subject and object

Answer: A

Q29. "E" denotes:
(A) Universal Negative Proposition
(B) Particular Affirmative Proposition
(C) Universal Affirmative Proposition
(D) Particular Negative Proposition

Answer: A

## Explanation:

Classification of Propositions:
(a) Universal Affirmative Proposition - A type
(b) Universal Negative Proposition - E type
(c) Particular Affirmative Proposition - I type
(d) Particular Negative Proposition - O type

Q30. ' $A$ ' is the father of ' $C$ ', and ' $D$ ' is the son of ' $B$ '. ' $E$ ' is the brother of ' $A$ '. If ' $C$ ' is the sister of ' $D$ ', how is ' $B$ ' related to ' $E$ '?
(A) daughter
(B) husband
(C) sister - in - law
(D) brother - in - law

Answer: C
B is sisiter in law of E ,
$E$ is brother in law of $B$,
$A$ and $B$ are parents of $C$ and $D$.
$E$ is Uncle of C and D .
So B is Sister-in-law of E.
Q31. Which of the following methods will you choose to prepare
choropleth map of India showing urban density of population:
(A) Quartiles
(B) Quintiles
(C) Mean and SD
(D) Break - point

Answer: A

Q32. Which of the following methods is best suited to show on a map the types of crops being grown in a region:
(A) Choropleth
(B) Chorochromatic
(C) Choroschematic
(D) Isopleth

Answer: A
Q33. A ratio represents the relation between:
(A) Part and Part
(B) Part and Whole
(C) Whole and Whole
(D) All of the above

## Answer: D

Q34. Out of four numbers, the average of the first three numbers is thrice the fourth number. If the average of the four numbers is 5 , the fourth number is:
(A) 4.5
(B) 5
(C) 2
(D) 4

Answer: C
Give that average of the four numbers is 5 .
So addition of 4 numbers is 20 .
The average of the first three numbers is thrice the fourth number
So $6+6+6=18$.
Hence fourth is 20-18 $=2$.
Q35. Circle graphs are used to show:
(A) How various sections share in the whole
(B) How various parts are related to the whole
(C) How one whole is related to other wholes
(D) How one part is related to other parts

Answer: B
A circle is the same as $360^{\circ}$. You can divide a circle into smaller portions. A part of a circle is called an arc and an arc is named according to its angle.

A circle graph, or a pie chart, is used to visualize information and data. A circle graph is usually used to easily show the results of an investigation in a proportional manner.

Q36. On the keyboard of computer each character has an "ASCII" value which stands for:
(A) American Stock Code for information Interchange
(B) American Standard Code for Information Interchange
(C) African Standard Code for Information Interchange
(D) Adaptable Standard Code for Information Change

Answer: B
Q37. Which part of the Central Processing Unit (CPU) performs calculation and makes decisions:
(A) Arithmetic Logic Unit
(B) Alternating Logic Unit
(C) Alternate Local Unit
(D) American Logic Unit

Answer: A
Q38. "Dpi" stands for:
(A) Dots per inch
(B) Digits per unit
(C) Dots pixel inch
(D) Diagrams per inch

Answer: A
Q39. The process of laying out a document with text, graphics, headlines and photographs is involved in
(A) Deck Top Publishing
(B) Desk Top Printing
(C) Desk Top Publishing
(D) Deck Top Printing
Answer: C

Q40. Transfer of data from one application to another line is known as:
(A) Dynamic Disk Exchange
(B) Dodgy Data

Exchange
(C) Dogmatic Data Exchange
(D) Dynamic Data Exchange
Answer: D

## Q41. Tsunami occurs due to:

(A) Mild earthquakes and landslides in the oceans
(B) Strong earthquakes and landslides in the oceans
(C) Strong earthquakes and landslides in mountains
(D) Strong earthquakes and landslides in deserts

Answer: B

Q42. Which of the natural hazards have big effect on Indian people each year?
(A) Cyclones
(B) Floods
(C) Earthquakes
(D) Landslides

Answer: B

Q43. Comparative Environment Impact Assessment study is to be conducted for:
(A) the whole year
(B) three seasons excluding
monsoon
(C) any three seasons
(D) the worst season

Answer: A
Q44. Sea level rise results primarily due to:
(A) Heavy rainfall
(B) Melting of glaciers
(C) Submarine volcanism
(D) Seafloor spreading

Answer: B

Q45. The plume rise in a coal based power plant depends on:
(i) Buoyancy
(ii) Atmospheric stability
(iii) Momentum of exhaust gases

Identify the correct code
(A) (i) and (ii) only
(B) (ii) and (iii) only
(C) (i) and (iii) only
(D) (i), (ii) and (iii)

Answer: B

Q46. Value education makes a student:
(A) Good citizen
(B) Successful businessman

## (C) Popular teacher <br> (D) Efficient manager

Answer: A
Value education is the process by which people give values to others. It can be an activity that can take place in any organisation during which people are assisted by others, who may be older, in a position of authority or are more experienced, to make explicit those values underlying their own behaviour, to assess the effectiveness of these values and associated behaviour for their own and others' long term well-being and to reflect on and acquire other values and behaviour which they recognise as being more effective for long term wellbeing of self and others. Values education can take place at home, as well as in schools, colleges, universities, jails and voluntary youth organisations. There are two main approaches to values education, some see it as inculcating or transmitting a set of values which often come from societal or religious rules or cultural ethics while others see it as a type of Socratic dialogue where people are gradually brought to their own realisation of what is good behaviours.

## Q47. Networking of libraries through electronic media is known

 as:(A) Inflibnet
(B) Libinfnet
(C) Internet
(D) HTML

Answer: A
Information and Library Network (INFLIBNET) Centre is an Autonomous Inter-University Centre (IUC) of University Grants Commission (UGC) involved in creating infrastructure for sharing of library and information resources and services among Academic and Research Institutions. INFLIBNET works collaboratively with Indian university libraries to shape the future of the academic libraries in the evolving information environment. INFLIBNET is involved in modernizing university libraries in India and connecting them as well as information centres in the country through a nationwide high speed data network using the state-of-art technologies for the optimum utilisation of information. INFLIBNET is set out to be a major player in promoting scholarly communication among academicians and researchers in India The primary objectives of INFLIBNET are: To promote and establish communication facilities to improve capability in information transfer and access, that provide support to scholarship, learning, research and academic
pursuit through cooperation and involvement of agencies concerned. To establish INFLIBNET: Information and Library Network a computer communication network for linking libraries and information centres in universities, deemed to be universities, colleges, UGC information centres, institutions of national importance and R \& D institutions, etc. avoiding duplication of efforts.

## Q48. The University which telecasts interactive educational programmes through its own channel is

(A) B. R. Ambedkar Open University, Hyderabad
(B) I.G.N.O.U.
(C) University of Pune
(D) Annamalai University

## Answer: B

The Indira Gandhi National Open University, known as IGNOU, is a distance learning national university located in IGNOU road, Maidan Garhi, New Delhi, India. Named after former Prime Minister of India Indira Gandhi, the university was established in 1985, when the Parliament of India passed the Indira Gandhi National Open University Act, 1985. IGNOU is run by the central government of India. IGNOU, the largest university in the world with over 4 million students, was founded to impart education by means of distance and open education, provide higher education opportunities particularly to the disadvantaged segments of society, encourage, coordinate and set standards for distance and open education in India and strengthen the human resources of India through education.

## Q49. The Government established the University Grants

 Commission by an Act of Parliament in the year:(A) 1980
(B) 1948
(C) 1950
(D) 1956

## Answer: D

The University Grants Commission (UGC) of India is a statutory body set up by the Indian Union government in 1956, and is charged with coordination, determination and maintenance of standards of higher education. It provides recognition to universities in India, and disburses funds to such recognized universities and colleges. Prof. Ved Prakash is the incumbent Chairman of

UGC, India. Its headquarters is in New Delhi, and 6 regional centres in Pune, Bhopal, Kolkata, Hyderabad, Guwahati and Bangalore.

## Q50. Universities having central campus for imparting education are called

(A) Central Universities
(B) Deemed Universities
(C) Residential Universities
(D) Open Universities

## Answer: A

A Central University or a Union University in India is established by Act of Parliament and are under the purview of the Department of Higher Education in the Union Human Resource Development Ministry. In general, universities in India are recognised by the University Grants Commission (UGC), which draws its power from the University Grants Commission Act, 1956. In addition, 15 Professional Councils are established, controlling different aspects of accreditation and coordination. Central universities, in addition, are covered by the Central Universities Act, 2009, which regulates their purpose, powers governance etc., and established 12 new universities. The list of central universities published by the UGC includes 46 central universities as on 20 May 2015.

## 6. Paper - I December - 2007

Q1. Verbal guidance is least effective in the learning of:
(A) Aptitudes
(C) Attitudes

Answer: B
A skill is learning to carry out a task with pre-determined results often within a given amount of time, energy, or both. Skills can often be divided into domain general and domain-specific skills. For example, in the domain of work, some general skills would include time management, teamwork and leadership, selfmotivation and others, whereas domain-specific skills would be useful only for a certain job. Skill usually requires certain environmental stimuli and situations to assess the level of skill being shown and used.

Q2. Which is the most important aspect of the teacher's role in learning?
(A) The development of insight into what constitutes an adequate performance
(B) The development of insight into what constitutes the pitfalls and dangers to be avoided
(C) The provision of encouragement and moral support
(D) The provision of continuous diagnostic and remedial help

## Answer: C

Q3. The most appropriate purpose of learning is:
(A) personal adjustment
(B) modification of behaviour
(C) social and political awareness
(D) preparing oneself for employment

## Answer: B

Q4. The students who keep on asking questions in the class should be:
(A) encouraged to find answer independently
(B) advised to meet the teacher after the class
(C) encouraged to continue questioning
(D) advised not to disturb during the lecture

## Answer: B

## Q5. Maximum participation of students is possible in teaching through:

(A) discussion method
(C) audio-visual aids

Answer: A
Discussion methods are a variety of forums for open-ended, collaborative exchange of ideas among a teacher and students or among students for the purpose of furthering students thinking, learning, problem solving, understanding, or literary appreciation. Participants present multiple points of view, respond to the ideas of others, and reflect on their own ideas in an effort to build their knowledge, understanding, or interpretation of the matter at hand. Discussions may occur among members of a dyad, small group, or whole class and be teacher-led or student-led. They frequently involve discussion of a written text, though discussion can also focus on a problem, issue, or topic that has its basis in a "text" in the larger sense of the term

## Q6. Generalised conclusion on the basis of a sample is

 technically known as:(A) Data analysis and interpretation
(B) Parameter inference
(C) Statistical inference
(D) All of the above

## Answer: C

## Q7. The experimental study is based on:

(A) The manipulation of variables
(B) Conceptual parameters
(C) Replication of research
(D) Survey of literature

Answer: A
Q8. The main characteristic of scientific research is:
(A) empirical
(B) theoretical
(C) experimental
(D) all of the above

Answer: D

## Q9. Authenticity of a research finding is its:

(A) Originality
(B) Validity
(C) Objectivity
(D) All of the above

Answer: C
Q10. Which technique is generally followed when the population is finite?
(A) Area Sampling Technique
(B) Purposive

Sampling Technique
(C) Systematic Sampling Technique
(D) None of the above

Answer: C

## Read the following passage and answer the questions 11 to 15:

Gandhi's overall social and environmental philosophy is based on what human beings need rather than what they want. His early introduction to the teachings of Jains, Theosophists, Christian sermons, Ruskin and Tolstoy, and most significantly the Bhagavad Gita, were to have profound impact on the development of Gandhi's holistic thinking on humanity, nature and their ecological interrelation. His deep concern for the disadvantaged, the poor and rural population created an ambience for an alternative social thinking that was at once far-sighted, local and immediate. For Gandhi was acutely aware that the demands generated by the need to feed and sustain human life, compounded by the growing industrialization of India, far outstripped the finite resources of nature. This might nowadays appear naïve or commonplace, but such pronouncements were as rare as they were heretical a century ago. Gandhi was also concerned about the destruction, under colonial and modernist designs, of the existing infrastructures which had more potential for keeping a community flourishing within ecologically-sensitive traditional patterns of subsistence, especially in the rural areas, than did the incoming Western alternatives based on nature-blind technology and the enslavement of human spirit and energies.
Perhaps the moral principle for which Gandhi is best known is that of active non-violence, derived from the traditional moral restraint of not injuring
another being. The most refined expression of this value is in the great epic of the Mahabharata, (c. 100 BCE to 200 CE ), where moral development proceeds through placing constraints on the liberties, desires and acquisitiveness endemic to human life. One's action is judged in terms of consequences and the impact it is likely to have on another. Jainas had generalized this principle to include all sentient creatures and biocommunities alike. Advanced Jaina monks and nuns will sweep their path to avoid harming insects and even bacteria. Non-injury is a non-negotiable universal prescription.

Q11. Which one of the following have a profound impact on the development of Gandhi's holistic thinking on humanity, nature and their ecological interrelations?
(A) Jain teachings
(B) Christian sermons
(C) Bhagavad Gita
(D) Ruskin and Tolstoy

Answer: C

Q12. Gandhi's overall social and environmental philosophy is based on human beings' :
(A) need
(B) desire
(C) wealth
(D) welfare

Answer: D
Q13. Gandhiji's deep concern for the disadvantaged, the poor and rural population created
an ambience for an alternative:
(A) rural policy
(B) social thinking
(C) urban policy
(D) economic thinking

Answer: B
Q14. Colonial policy and modernization led to the destruction of:
(A) major industrial infrastructure
(B) irrigation infrastructure (C) urban infrastructure
(D) rural infrastructure

Answer: D
Q15. Gandhi's active non-violence is derived from:
(A) Moral restraint of not injuring another being
(B) Having liberties, desires and acquisitiveness
(C) Freedom of action
(D) Nature-blind technology and enslavement of human spirit and energies Answer: A

## Q16. DTH service was started in the year:

(A) 2000
(B) 2002
(C) 2004
(D) 2006

## Answer: C

DTH service was launched back in 2004 by launching of Dish TV by Essel Group's Zee Entertainment Enterprises. Dish TV is on the same satellite where DD Direct+ was, DD Direct+ shifted to Insat 4B which is adjacent to NSS-6. Dish TV was only DTH operator in India to carry the two Turner channels Turner Classic Movies and Boomerang. Both the channels were removed from the platform due to unknown reasons in March 2009. In October 2010 Dish tv added the long awaited Neo Sports and Neo Cricket on its platform

## Q17. National Press day is celebrated on:

(A) $16^{\text {th }}$ November
(B) $19^{\text {th }}$ November
(C) $21^{\text {st }}$ November
(D) $30^{\text {th }}$ November

Answer: A

1) National Press Day --> The 16th of November? is symbolic of a free and responsible press in India. 2) International Men's Day (IMD) is an annual international event celebrated on 19 November.

Q18. The total number of members in the Press Council of India are:
(A) 28
(B) 14
(C) 17
(D) 20

Answer: A
The Press Council is headed by a Chairman: usually, a retired judge of the Supreme Court of India. It consists of a Chairman and 28 other members. Of the 28 members, 13 represent the working journalists. Of whom 6 are to be editors of newspapers and remaining 7 are to be working journalists other than editors. 6 are to be from among persons who own or carry on the business of
management of newspapers. One is to be from among the persons who manage news agencies.

## Q19. The right to impart and receive information is guaranteed in the Constitution of India by Article:

(A) 19 (2) (a)
(B) 19 (16)
(C) (19) (2)
(D) (19) (1) (a)

Article 19. Protection of certain rights regarding freedom of speech, etc. 1) All citizens shall have the right a) to freedom of speech and expression; b) to assemble peaceably and without arms; c) to form associations or unions; d) to move freely throughout the territory of India; e) to reside and settle in any part of the territory of India; and g) to practise any profession, or to carry on any occupation, trade or business. 2) Nothing in sub-clause (a) of clause (1) shall affect the operation of any existing law, or prevent the State from making any law, in so far as such law imposes reasonable restrictions on the exercise of the right conferred by the said sub-clause in the interests of the sovereignty and integrity of India, the security of the State, friendly relations with foreign States, public order, decency or morality, or in relation to contempt of court, defamation or incitement to an offence. 3) Nothing in sub-clause (b) of the said clause shall affect the operation of any existing law in so far as it imposes, or prevent the State from making any law imposing, in the interests of the sovereignty and integrity of India or public order, reasonable restrictions on the exercise of the right conferred by the said sub-clause. 4) Nothing in subclause (c) of the said clause shall affect the operation of any existing law in so far as it imposes, or prevent the State from making any law imposing, in the interests of the sovereignty and integrity of India or public order or morality, reasonable restrictions on the exercise of the right conferred by the said subclause. 5) Nothing in sub-clauses (d) and (e) of the said clause shall affect the operation of any existing law in so far as it imposes, or prevent the State from making any law imposing, reasonable restrictions on the exercise of any of the rights conferred by the said sub-clauses either in the interests of the general public or for the protection of the interests of any Scheduled Tribe. 6) Nothing in sub-clause (g) of the said clause shall affect the operation of any existing law in so far as it imposes, or prevent the State from making any law imposing, in the interests of the general public, reasonable restrictions on the exercise of the right conferred by the said sub-clause, and, in particular, nothing in the said
sub-clause shall affect the operation of any existing law in so far as it relates to, or prevent the State from making any law relating to,? (i) the professional or technical qualifications necessary for practising any profession or carrying on any occupation, trade or business, or ii) the carrying on by the State, or by a corporation owned or controlled by the State, of any trade, business, industry or service, whether to the exclusion, complete or partial, of citizens or otherwise.
Answer: D
Rightly as one of the significant objectives of Indian Constitution as the preamble describes, is to secure liberty of thought and expressions to the citizens of India. The Article 19(1)(a) of the constitution. the fundamental right to speech and expression can never be exercised until and unless the information regarding public matters is being circulated.

## Q20. Use of radio for higher education is based on the presumption

 of:(A) Enriching curriculum based instruction
(B) Replacing teacher in the long run
(C) Everybody having access to a radio set
(D) Other means of instruction getting outdated

## Answer: A

Intrapersonal communication made some argue that this definition is too narrow but to some extent it is also communication since there is an exchange of message within oneself. Intrapersonal communication is a communicator's internal use of language or thought. It can be useful to envision intrapersonal communication occurring in the mind of the individual in a model which contains a sender, receiver, and feedback loop.

## Q21. Find out the number which should come at the place of question mark which will complete the following series:

$5,4,9,17,35, ?=139$
(A) 149
(B) 79
(C) 49
(D) 69

Answer: D
$4 * 2=8+1=9$
$9 * 2=18-1=17$
$17 * 2=34+1=35$
So $35 * 2=70-1=69$
Hence $4+5+9+17+35+69=139$ Twice the previous number plus 1 and twice the previous and minus 1 series

Questions 22 to 24 are based on the following diagram in which there are three interlocking circles I, S and P, where circle I stands for Indians, circle $S$ for Scientists and circle Pfor Politicians. Different regions in the figure are lettered from a to $f$

Q22. The region which represents Non-Indian Scientists who are Politicians:
(A) f
(B) d
(C) a
(D) c

Answer: A
The figure clearly show the Region f represents Non-Indian Scientists who are Politicians.

Q23. The region which represents Indians who are neither Scientists nor Politicians:
(A) g
(B) c
(C) f
(D) a

Answer: B
The figure clearly show the Region c represents Indian who are neither

Scientists nor Politicians.
Q24. The region which represents Politicians who are Indians as well as Scientists:
(A) b
(B) c
(C) a
(D) d

Answer: C
The figure clearly show the Region a represents Politicians who are Indians as well as Scientists:

## Q25. Which number is missing in the following series ?

2, 5, 10, 17, 26, 37, 50, ?
(A) 63
(B) 65
(C) 67
(D) 69

Answer: B
Observe that $2,5,10,17,26,37,50$, ?
There is difference between two number is $3,5,7,9,11,13$
So next is $50+15=65$

## Q26. The function of measurement includes:

(A) Prognosis
(B) Diagnosis
(C) Prediction
(D) All of the above
Answer: D

Q27. Logical arguments are based on:
(A) Scientific reasoning
(B) Customary reasoning
(C) Mathematical reasoning
(D) Syllogistic reasoning

Answer: D

Q28. Insert the missing number:
4:17: : 7:?
(A) 48
(B) 49
(C) 50
(D) 51

Answer: C
Square of 4 is $16+1=17$
Therefore Square of 7 is $49+1=50$

## Q29. Choose the odd word:

(A) Nun
(B) Knight
(C) Monk
(D) Priest

## Answer: B

Knight is a man who served his sovereign or lord as a mounted soldier in armour.
While Nun, Monk, Priest are work for social service. Nun is a member of a religious community of women, typically one living under vows of poverty, chastity, and obedience.
A monk is a person who practices religious asceticism, living either alone or with any number of other monks.
A priest or priestess (feminine) is a person authorized to perform the sacred rituals of a religion, especially as a mediatory agent between humans and one or more deities.

Q30. Choose the number which is different from others in the group:
(A) 49
(B) 63
(C) 77
(D) 81

Answer: B
49,63 and 77 are divisible by 7 .
But 81 is not divisible by 7 .

## Q31. Probability sampling implies:

(A) Stratified Random Sampling
(B) Systematic Random

Sampling
(C) Simple Random Sampling
(D) All of the above

Answer: D

## Q32. Insert the missing number:

36/62, 39/63, 43/61, 48/64, ?
(A) $51 / 65$
(B) $56 / 60$
(C) $54 / 60$
(D) $33 / 60$

Answer: C
Observer 36/62, 39/63, 43/61, 48/64, ? series

Upper part is increase by 3, 4, 5, 6
i.e $36+3=39,39+4=43,43+5=48,48+6=54$.

Q33. At what time between 3 and 4 O'clock will the hands of a watch point in opposite directions?
(A) 40 minutes past three
(B) 45 minutes past three
(C) 50 minutes past three
(D) 55 minutes past three

Answer: C
Require time of a watch point in opposite directions between 3 and 4 O'clock will the hands is $=50$ minutes past three

Q34. Mary has three children. What is the probability that none of the three children is a boy?
(A) $1 / 2$
(B) $1 / 3$
(C) $3 / 4$
(D) $1 / 8$

Answer: D
Explanation:
If none of the children are boys, this means that each child must be a girl.
The probability of this happening is $1 / 2 \times 1 / 2 \times 1 / 2$.
The answer is $1 / 8$.
or
1.The probably of a boy are bbb, bbg, bgb, gbb, bgg, gbg, ggb, ggg, which is 8 'equally likely' cases, one meets desired criteria, probability of desired criteria is $1 / 8$.
2. Probability that first child is not boy $=1 / 2$

Probability that second child is not boy $=1 / 2$
Probability that third child is not boy= $1 / 2$
Probability that none of the three children is a boy $=1 / 2 \times 1 / 2 \times 1 / 2=1 / 8$
Q35. If the radius of a circle is increased by 50 per cent. Its area is increased by:
(A) 125 per cent
(B) 100 per cent
(C) 75 per cent
(D) 50 per cent

Answer: A
Area of circle $=$ pie $*$ Radius $*$ Radius.
Suppose radius is 100

Hence Area $=3.14 * 100 * 100=31400$
Radius increase by $50 \%$ i.e 150
Therefore Area $=3.14 * 150 * 150=70650$
which is $125 \%$ of original

## Q36. CD ROM stands for:

(A) Computer Disk Read Only Memory
(B) Compact Disk Read Over Memory
(C) Compact Disk Read Only Memory
(D) Computer Disk Read Over Memory

Answer: C

Q37. The 'brain' of a computer which keeps peripherals under its control is called:
(A) Common Power Unit
(B) Common Processing Unit
(C) Central Power Unit
(D) Central Processing Unit
Answer: D

Q38. Data can be saved on backing storage medium known as:
(A) Compact Disk Recordable
(C) Compact Disk Rewritable
(B) Computer Disk Rewritable
(D) Computer

Data Rewritable
Answer: C

Q39. RAM means:
(A) Random Access Memory
(B) Rigid Access Memory
(C) Rapid Access Memory
(D) Revolving Access Memory
Answer: A

## Q40. www represents:

(A) who what and where
(B) weird wide web
(C) word wide web
(D) world wide web

Answer: D

Q41. Deforestation during the recent decades has led to:
(A) Soil erosion
(B) Landslides
(C) Loss of bio-diversity
(D) All the above

Answer: D

Q42. Which one of the following natural hazards is responsible for causing highest human disaster?
(A) Earthquakes
(B) Volcanic
eruptions
(C) Snow-storms (D) Tsunami
Answer: A

Q43. Which one of the following is appropriate for natural hazard mitigation?
(A) International AID
(B) Timely Warning System
(C) Rehabilitation
(D) Community Participation

## Answer: D

Q44. Slums in metro-city are the result of:
(A) Rural to urban migration
(C) Lack of urban infrastructure

Answer: A
(B) Poverty of the city-scape
(D) Urban-governance

## Q45. The great Indian Bustard bird is found in:

(A) Thar Desert of India
(B) Coastal regions of India
(C) Temperate Forests in the Himalaya
(D) Tarai zones of the Himalayan Foot

Answer: A

Q46. The first Indian Satellite for serving the educational sector is known as:
(A) SATEDU
(B) INSAT - B
(C) EDUSAT
(D) INSAT - C

## Answer: C

GSAT-3, also known as EDUSAT, was a communications satellite which was launched on 20 September 2004 by the Indian Space Research Organisation. EDUSAT is the first Indian satellite built exclusively to serve the educational
sector. It is mainly intended to meet the demand for an interactive satellitebased distance education system for the country.

## Q47. Exclusive educational channel of IGNOU is known as:

(A) Gyan Darshan
(B) Cyan Vani
(C) Door Darshan
(D) Prasar Bharati

## Answer: A

Indian DD Gyandarshan is an educational television channel that relays programmes from various Doordarshan Kendras in different Languages. The Educational television channel is organized and administered by NCERT, IGNOU and the National Institute of Open Schools. Educational TV is one of the priority areas for Doordarshan. Curriculum based programmes are produced with active involvement of state educational administrators and teachers and are telecast from Delhi, Mumbai and Chennai. Satellite based enrichment programmes for school children are produced by the State Institutes of Educational Technology (SIET), in Marathi at Pune, Gujarati at Ahmedabad, Oriya at Bhubaneshwar and Telugu at Hyderabad, which are broadcasted by all transmitters in the concerned states. Hindi programmes are produced at SIET at Delhi, Lucknow and Patna, which are relayed by all transmitters in Uttar Pradesh, Rajasthan, Bihar, Madhya Pradesh, Haryana, Himachal Pradeshand Delhi.

## Q48. The head quarter of Mahatma Gandhi Antarrashtriya Hindi Vishwavidyalaya is situated in:


#### Abstract

(A) Sevagram (B) New Delhi (C) Wardha (D) Ahmedabad

Answer: C Mahatma Gandhi Antarrashtriya Hindi Vishwavidyalaya is a Central University located in Wardha, Maharashtra, India. It came into existence through an Act of Parliament which received the assent of the President on January 8, 1997. This is an act to establish and incorporate a teaching University for the promotion and development of Hindi language and literature, through teaching and research, with a view to enabling Hindi to achieve greater functional efficiency and recognition as a major international language and to provide for matters connected therewith or incidental thereto.


Q49. Match List - I with List - II and select the correct answer using the codes given below:

## List-I

(Institutes)
(a) Central Institute of English
and Foreign Languages
(b) Gramodaya Vishwavidyalaya
(c) Central Institute of Higher Tibetan Studies
(d) IGNOU

List-II

(Locations)
(i) Chitrakoot
(ii) Hyderabad
(iii) New Delhi (iv)

Dharmasala
Codes:
(a) (b) (c) (d)
(A) (ii) (i) (iv) (iii)
(B) (iv) (iii) (ii) (i)
(C) (iii) (iv) (i) (ii)
(D) (i) (ii) (iv) (iii)

Answer: A
The English and Foreign Languages University is a central university in India. The main campus is located in Hyderabad, but it also operates campuses at Lucknow, Shillong, and Malapuram. The Central University for Tibetan Studies, originally called Central Institute of Higher Tibetan Studies, is a university institute founded in Sarnath, Varanasi, India in 1967, as an autonomous organization under Union Ministry of Culture. The Indira Gandhi National Open University, known as IGNOU, is a distance learning national university located in IGNOU road, Maidan Garhi, New Delhi, India.

## Q50. The aim of vocationalization of education is:

(A) preparing students for a vocation along with knowledge
(B) converting liberal education into vocational education
(C) giving more importance to vocational than general education
(D) making liberal education job-oriented

## Answer: A

Vocational education is concerned with the training on vocation. It is related to productivity. Vocational education prepares individuals for jobs. It has adequate employment potentialities. It helps in broadening of horizon. It leads to dignity of labour. It is helpful in the maximum utilisation of the material
resources of the country. When vocational educational education is mixed with general education it is called vocationlisation of education. Vocationalisation of education is designed to introduce manual skills in general education. Vocationalisation of education means training in some vocations at the secondary, Higher Secondary level with general education.

## 7. Paper - I June - 2008

Q1. The teacher has been glorified by the phrase "Friend, philosopher and guide" because:
(A) He has to play all vital roles in the context of society
(B) He transmits the high value of humanity to students
(C) He is the great reformer of the society
(D) He is a great patriot

Answer: B
Q2. The most important cause of failure for teacher lies in the area of:
(A) inter personal relationship
(B) lack of command over the knowledge of the subject
(C) verbal ability
(D) strict handling of the students

Answer: B
Q3. A teacher can establish rapport with his students by:
(A) becoming a figure of authority
(B) impressing students with knowledge and skill
(C) playing the role of a guide
(D) becoming a friend to the students

## Answer: B

Building rapport with students can be a remarkably effective way to improve classroom management. But there is some confusion over what rapport is and how one goes about building it. Rapport is nothing more than a connection you make with your students based on their positive feelings for you. When they like you and trust you, and when you in turn like and believe in them, you'll form a bond that makes classroom management a lot easier.

## Q4. Education is a powerful instrument of:

(A) Social transformation
(B) Personal transformation
(C) Cultural transformation
(D) All the above

Answer: D
Education is the key to eliminating gender inequality, to reducing poverty, to creating a sustainable planet, to preventing needless deaths and illness, and to fostering peace. And in a knowledge economy, education is the new currency by which nations maintain economic competitiveness and global prosperity. Education is an investment, and one of the most critical investments we can make. This is true not only for the United States, but for countries around the world.

Q5. A teacher's major contribution towards the maximum selfrealization of the student is affected through:
(A) Constant fulfilment of the students' needs
(B) Strict control of class-room activities
(C) Sensitivity to students' needs, goals and purposes
(D) Strict reinforcement of academic standards

## Answer: C

## Q6. Research problem is selected from the stand point of:

(A) Researcher's interest
(B) Financial support
(C) Social relevance
(D) Availability of relevant literature

Answer: A

## Q7. Which one is called non-probability sampling?

(A) Cluster sampling
(B) Quota sampling
(C) Systematic sampling
(D) Stratified random sampling

## Explanation:

Non-probability sampling is a sampling technique where the samples are gathered in a process that does not give all the individuals in the population equal chances of being selected.
Quota sampling is a non-probability sampling technique wherein the assembled sample has the same proportions of individuals as the entire population with respect to known characteristics, traits or focused phenomenon.

## Answer: B

Q8. Formulation of hypothesis may NOT be required in:
(A) Survey method
(B) Historical studies
(C) Experimental studies
(D) Normative studies

## Answer: B

Q9. Field-work based research is classified as:
(A) Empirical
(C) Experimental

Answer: C
(B) Historical
(D) Biographical

Q10. Which of the following sampling method is appropriate to study the prevalence of AIDS amongst male and female in India in 1976, 1986, 1996 and 2006 ?
(A) Cluster sampling
(B) Systematic sampling
(C) Quota sampling
(D) Stratified random sampling

Answer: B

## Read the following passage and answer the questions 11 to 15:

The fundamental principle is that Article 14 forbids class legislation but permits reasonable classification for the purpose of legislation which classification must satisfy the twin tests of classification being founded on an intelligible differentia which distinguishes persons or things that are grouped together from those that are left out of the group and that differentia must have a rational nexus to the object sought to be achieved by the Statute in question. The thrust of Article 14 is that the citizen is entitled to equality before law and equal protection of laws. In the very nature of things the society being composed of unequals a welfare State will have to strive by both executive and legislative action to help the less fortunate in society to ameliorate their condition so that the social and economic inequality in the society may be bridged. This would necessitate a legislative application to a group of citizens otherwise unequal and amelioration of whose lot is the object of state affirmative action. In the absence of the doctrine of classification such legislation is likely to flounder on the bed rock of equality enshrined in Article 14. The Court realistically appraising the social and economic inequality and keeping in view the guidelines on which the State action must move as
constitutionally laid down in Part IV of the Constitution evolved the doctrine of classification. The doctrine was evolved to sustain a legislation or State action designed to help weaker sections of the society or some such segments of the society in need of succour. Legislative and executive action may accordingly be sustained if it satisfies the twin tests of reasonable classification and the rational principle correlated to the object sought to be achieved.
The concept of equality before the law does not involve the idea of absolute equality among human beings which is a physical impossibility. All that Article 14 guarantees is a similarity of treatment contra-distinguished from identical treatment. Equality before law means that among equals the law should be equal and should be equally administered and that the likes should be treated alike. Equality before the law does not mean that things which are different shall be as though they are the same. It ofcourse means denial of any special privilege by reason of birth, creed or the like. The legislation as well as the executive government, while dealing with diverse problems arising out of an infinite variety of human relations must of necessity have the power of making special laws, to attain any particular object and to achieve that object it must have the power of selection or classification of persons and things upon which such laws are to operate.

## Q11. Right to equality, one of the fundamental rights, is enunciated in the constitution under Part III, Article

(A) 12
(B) 13
(C) 14
(D) 15

Answer: C
Q12. The main thrust of Right to equality is that it permits:
(A) class legislation
(B) equality before law and equal protection under the law
(C) absolute equality
(D) special privilege by reason of birth

## Answer: B

## Q13. The social and economic inequality in the society can be bridged by:

(A) executive and legislative action
(B) universal suffrage
(C) identical treatment
(D) none of the above
Answer: A

Q14. The doctrine of classification is evolved to:
(A) Help weaker sections of the society equality
(C) Provide identical treatment
(B) Provide absolute
above

Answer: A
Q15. While dealing with diverse problems arising out of an infinite variety of human relations, the government:
(A) must have the power of making special laws
(B) must not have any power to make special laws
(C) must have power to withdraw equal rights
(D) none of the above

Answer: A
Q16. Communication with oneself is known as:
(A) Group communication
(B) Grapevine communication
(C) Interpersonal communication
(D) Intrapersonal communication

## Answer: D

Explanation:
Interpersonal refers to relationships or actions that take place between two or more people while Intrapersonal refers to things that go on exclusively within one person.

## Q17. Which broadcasting system for TV is followed in India?

(A) NTSE
(B) PAL
(C) SECAM
(D) NTCS

Answer: B
PAL, short for Phase Alternating Line, is a colour encoding system for analogue television used in broadcast television systems in most countries broadcasting at 625 -line / 50 field ( 25 frame) per second (576i). Other
common colour encoding systems are NTSC and SECAM. North America, most of South America, Japan, South Korea and Taiwan adopted NTSC. Most of Western Europe, India, Iceland, Australia, parts of Africa and the Middle East, and a few countries in South America adopted PAL .SECAM was mainly adopted in France, Eastern Europe and parts of Africa.

## Explanation:

There are two types of analog format used to broadcast video signals throughout the world. Certain parts of world use NTSC, which stands for National Television System Committee, while other parts of the world use PAL, which is short for Phase Alternating Line.

Q18. All India Radio before 1936 was known as:
(A) Indian Radio Broadcasting India
(C) Indian Broadcasting Service

Service
Answer: C
All India Radio had formally started functioning in 1936. Prior to this, the radio broadcasting had started in India under the banner of Indian Broadcasting Company.

## Q19. The biggest news agency of India is:

(A) PTI
(B) UNI
(C) NANAP
(D) Samachar Bharati

Answer: A
Press Trust of India (PTI) is the largest news agency in India.
It is headquartered in New Delhi and is a nonprofit cooperative among more than 500 Indian newspapers and has 984 full-time employees, as on January 8, 2014. It employs over 400 journalists and 500 part-time correspondents located in most of the district headquarters in the country. A few correspondents are based in major capitals and important business centres on the world. It provides news coverage and information of the region in both English and Hindi. Its corporate office is located at Sansad Marg, New Delhi and registered office in D N Road, Mumbai.

## Explanation:

Press Trust of India (PTI) is the largest news agency in India. It is
headquartered in New Delhi and is a nonprofit cooperative among more than 500 Indian newspapers. PTI was registered in 1947 and started functioning in 1949.

## Q20. Prasar Bharati was launched in the year:

(A) 1995
(B) 1997
(C) 1999
(D) 2001

Answer: B
The Parliament of India passed an Act to grant this autonomy in 1990, but it was not enacted until 15 September 1997. Prasar Bharati is India's largest public broadcasting agency. It is an autonomous body set up by an Act of Parliament and comprises Doordarshan Television Network and All India Radio which were earlier media units of the Ministry of Information and Broadcasting.

## Explanation:

Prasar Bharati is India's largest public broadcasting agency. It is an autonomous body established under the Prasar Bharati Act and came into existence on 23.11.1997. The objectives of public service broadcasting are achieved in terms of Prasar Bharati Act through All India Radio and Doordarshan, which earlier were working as media units under the Ministry of Information and Broadcasting.

## Q21. A statistical measure based upon the entire population is

 called parameter while measure based upon a sample is known as:(A) Sample parameter
(B) Inference
(C) Statistics
(D) None of these

Answer: C

Q22. The importance of the correlation co-efficient lies in the fact that:
(A) There is a linear relationship between the correlated variables.
(B) It is one of the most valid measure of statistics.
(C) It allows one to determine the degree or strength of the association between two variables.
(D) It is a non-parametric method of statistical analysis.

## Answer: C

## Q23. The F-test:

(A) is essentially a two tailed test.
(B) is essentially a one tailed test.
(C) can be one tailed as well as two tailed depending on the hypothesis.
(D) can never be a one tailed test.

Answer: C

Q24. What will be the next letter in the following series: DCXW, FGVU, HGTS, .............
(A) AKPO
(B) JBYZ
(C) JIRQ
(D) LMRS

Answer: C
First two letter is the difference of +2 i.e next 2 character and last two character is difference of -2 character i.e previous 2 . Therefore After HG TS --> JI RQ

Q25. The following question is based on the diagram given below. If the two small circles represent formal class-room education and distance education and the big circle stands for university system of education, which figure represents the university systems.
(A)
(B)
(C)
(D)

Answer: B
In Figure 2 big circle stands for University system of Education and two seprate small circle inside the Big circle represent formal class-room education and distance education.

Q26. The statement, 'To be non-violent is good' is a
(A) Moral judgement
(B) Factual judgement
(C) Religious judgement
(D) Value judgement
Answer: D

Q27. Assertion (A) : Man is a rational being.
Reason (R) : Man is a social being.
(A) Both (A) and (R) are true and (R) is the correct explanation of (A)
(B) Both (A) and (R) are true but (R) is not the correct explanation of (A)
(C) (A) is true but (R) is false
(D) (A) is false but (R) is true

Answer: B

## Q28. Value Judgements are:

(A) Factual Judgements
(B) Ordinary Judgements
(C) Normative Judgements
(D) Expression of public opinion

Answer: D

Q29. Deductive reasoning proceeds from
(A) general to particular
(B) particular to general
(C) one general conclusion to another general conclusion
(D) one particular conclusion to another particular conclusion

Answer: A

Q30. AGARTALA is written in code as 14168171 , the code for AGRA is:
(A) 1641
(B) 1416
(C) 1441
(D) 1461

Answer: D
A G AR T ALA is written in code as
14168171
Therefore A G R A= 1461

Q31. Which one of the following is the most comprehensive source of population data?
(A) National Family Health Surveys

Surveys
(C) Census

Health Surveys
Answer: C
(B) National Sample
(D) Demographic

Q32. Which one of the following principles is not applicable to sampling?
(A) Sample units must be clearly defined
(B) Sample units must be dependent on each other
(C) Same units of sample should be used throughout the study
(D) Sample units must be chosen in a systematic and objective manner

## Answer: B

Q33. If January 1st, 2007 is Monday, what was the day on 1st January 1995?
(A) Sunday
(B) Monday
(C) Friday
(D) Saturday

Answer: A
There are 3 leap years in between 1995 and 2007 which are 1996, 2000, 2004.
You have to minus $(12+3)$ from Monday.
1 ordinary year $=365$ days $=(52$ weeks +1 day. $)$
1 ordinary year has 1 odd day.
1 leap year $=366$ days $=(52$ weeks +2 days $)$
1 leap year has 2 odd days.
From 2007 to 1995 There are 12 Yrs.
1996, 2000 and 2004 are leap years Therefore number of odd days $=3 * 2=6$
Remaining 9 years have 1 odd day each $=9 * 1=9$
$6+9=15,15$ divide by $7=1$ i.e one day previous of Monday
Hence Sunday is Right Answer.
Q34. Insert the missing number in the following series:
416864 ? 256
(A) 16
(B) 24
(C) 32
(D) 20

Answer: A
Square root of 16 is 4 , Square root of 64 is 8 , Therefore Square root of 256 is 16 .

Q35. If an article is sold for Rs. 178 at a loss of $11 \%$; what would be its selling price in order to earn a profit of $\mathbf{1 1 \%}$ ?
(A) Rs. 222.50
(B) Rs. 267
(C) Rs. 222
(D) Rs. 220

## Answer: C

## Explanation:

Seling Price (SP) = 100-11=89\% of Cost price C.P
$178=$ C.P *89/100
$\mathrm{C} . \mathrm{P}=100 * 178 / 89=200$
Therefore For $11 \%$ profit, the S.P will be S.P $=200 * 111 / 100=222$ Rs
or
Solution: Let the cost price (CP) of an article be C
Since there is a loss of $11 \%$,
Therefore, $\mathrm{SP}=\mathrm{C}-{ }^{11 \mathrm{C}} /{ }_{100}={ }^{89 \mathrm{C}} /{ }_{100}$
By the problem, ${ }^{89 C} /{ }_{100}=178$
or, $\mathrm{C}=178 \times 100 /{ }_{89}=200$
therefore, The cost price (CP) of the article = Rs. 200
He should earn a profit of $11 \%$
therefore, Sell Price (SP) of the article $=\mathrm{C}+{ }^{11 \mathrm{C}} / 100$
$=200+{ }^{11 \times 200} / 100$
$=222$

Q36. WYSIWYG - describes the display of a document on screen as it will actually print:
(A) What you state is what you get
(B) What you see is what you get
(C) What you save is what you get
(D) What you suggest is what you get

Answer: B

Q37. Which of the following is not a Computer language?
(A) PASCAL
(B) UNIX
(C) FORTRAN
(D) COBOL

Answer: B

## Q38. A key-board has at least:

(A) 91 keys
(B) 101 keys
(C) 111 keys
(D) 121 keys

Answer: B

Q39. An E-mail address is composed of:
(A) two parts
(B) three parts
(C) four parts
(D) five parts

Answer: A

Q40. Corel Draw is a popular:
(A) Illustration programme
(B) Programming language
(C) Text programme
(D) None of the above
Answer: A

Q41. Human ear is most sensitive to noise in which of the following ranges:
(A) $1-2 \mathrm{KHz}$
(B) $100-500 \mathrm{~Hz}$
(C) $10-12 \mathrm{KHz}$
(D) $2-5 \mathrm{KHz}$

Answer: D

Q42. Which one of the following units is used to measure intensity of noise?
(A) decible
(B) Hz
(C) Phon
(D) Watts $/ \mathrm{m}^{2}$

Answer: A

Q43. If the population growth follows a logistic curve, the maximum sustainable yield:
(A) is equal to half the carrying capacity.
(B) is equal to the carrying capacity.
(C) depends on growth rates.
(D) depends on the initial population.

Answer: A

Q44. Chemical weathering of rocks is largely dependent upon:
(A) high temperature
(B) strong wind action
(C) heavy rainfall
(D) glaciation

Answer: A

## Q45. Structure of earth's system consists of the following:

Match List-I with List-II and give the correct answer.
List-I (Zone)
(a) Atmosphere
(b) Biosphere
(c) Hydrosphere matter
(d) Lithosphere

## Codes:

(a) (b) (c) (d)
(A) (ii) (iii) (i) (iv)
(B) (i) (iii) (ii) (iv)
(C) (ii) (i) (iii) (iv)
(D) (iii) (i) (ii) (iv)

Answer: B

Q46. NAAC is an autonomous institution under the aegis of:
(A) ICSSR
(B) CSIR
(C) ATCTE
(D) UGC

Answer: D
The National Assessment and Accreditation Council (NAAC) is an organization that assesses and accredits institutions of higher education in India. It is an autonomous body funded by University Grants Commission of Government of India headquartered in Bangalore. NAAC was established in 1994 in response to recommendations of National Policy in Education (1986). This policy was to "address the issues of deterioration in quality of education",.

Q47. National Council for Women's Education was established in:
(A) 1958
(B) 1976
(C) 1989
(D) 2000

Answer: A
The problems of education of girls and women in the country, acquired a new significance since the attainment of Independence. The National Committee on Women's Education was accordingly set up by the Government in May 1958, with Shrimati Durgabai Deshmukh as Chairman. The Committee desired ample
provision for school mothers, creches, training of women teachers and employment facilities for adult women.

## Q48. Which one of the following is not situated in New Delhi?

(A) Indian Council of Cultural Relations
(B) Indian Council of Scientific Research
(C) National Council of Educational Research and Training
(D) Indian Institute of Advanced Studies

## Answer: D

The Indian Institute of Advanced Study (IIAS) is a research institute based in Shimla, India. It was set up by the Ministry of Education, Government of India in 1964 and it started functioning from October 20, 1965.

## Q49. Autonomy in higher education implies freedom in:

(A) Administration
(B) Policy-making
(C) Finance
(D) Curriculum development
Answer: B

Autonomy of an institution is the ability to take all decisions regarding functioning of the institution. For a publicly funded Institution, full autonomy on finances is clearly not possible. Hence, while most will agree that in decisions relating to salary etc. government, which gives the funds, will have a say, call for autonomy almost always implies at least the ability to take all decisions related to academics.

## Q50. Match List-I with List-II and select the correct answer from the code given below:

## List-I (institutions)

(a) Dr. Hari Singh Gour University
(b) S.N.D.T. University
(c) M.S. University
(d) J.N. Vyas University

## List-II (Locations)

(i) Mumbai
(ii) Baroda
(iii) Jodhpur
(iv) Sagar

## Codes:

(a) (b) (c) (d)
(A) (iv) (i) (ii) (iii)
(B) (i) (ii) (iii) (iv)
(C) (iii) (i) (ii) (iv)
(D) (ii) (iv) (i) (iii)

Answer: A

1) Dr. Hari Singh Gour University, formerly and more popularly known as Sagar University, is a Central University in the city of Sagar, the state of Madhya Pradesh or (MP), India. 2) Shreemati Nathibai Damodar Thackersey Women's University (SNDT) is a women's university in the city of Mumbai, India. The university headquarters are situated at Churchgate in South Mumbai, while the main campus is in Santacruz?Juhu area of Mumbai. SNDT has three campuses: two in Mumbai and one in Pune. 3) India's internationally renowned The Maharaja Sayajirao University of Baroda (1949) has blossomed from the Baroda College (1881) which is one of the oldest centres of learning in western India. 4) Jai Narain Vyas University, also known as University of Jodhpur, is in Jodhpur city in the Indian state of Rajasthan. Established in 1962 it took over the four colleges of Jodhpur run by the state government.

## 8. Paper - I December - 2008

## Q1. According to Swami Vivekananda, teacher's success depends on:

(A) His renunciation of personal gain and service to others
(B) His professional training and creativity
(C) His concentration on his work and duties with a spirit of obedience to God
(D) His mastery on the subject and capacity in controlling the students

Answer: D
Q2. Which of the following teacher, will be liked most?
(A) A teacher of high idealistic attitude
(B) A loving teacher
(C) A teacher who is disciplined
(D) A teacher who often amuses his students

Answer: A

Q3. A teacher's most important challenge is:
(A) To make students do their home work
(B) To make teaching-learning process enjoyable
(C) To maintain discipline in the class room
(D) To prepare the question paper

Answer: B
Q4. Value-education stands for:
(A) making a student healthy
(B) making a
student to get a job
(C) inculcation of virtues
(D) all-round development of
personality
Answer: C
Q5. When a normal student behaves in an erratic manner in
the class, you would:
(A) pull up the student then and there
(B) talk to the student after the class
(C) ask the student to leave the class
(D) ignore the student

Answer: B
Q6. The research is always -
(A) verifying the old knowledge
(B) exploring
new knowledge
(C) filling the gap between knowledge
(D) all of these

Answer: D

Q7. The research that applies the laws at the time of field study to draw more and more clear ideas about the problem is:
(A) Applied research
(B) Action research
(C) Experimental research
(D) None of these
Answer: C

Q8. When a research problem is related to heterogeneous population, the most suitable sampling method is:
(A) Cluster Sampling
(B) Stratified Sampling
(C) Convenient Sampling
(D) Lottery Method

Answer: B
Q9. The process not needed in experimental research is:
(A) Observation
(B) Manipulation and replication
(C) Controlling
(D) Reference collection

Answer: D

Q10. A research problem is not feasible only when:
(A) it is researchable
(B) it is new and adds something to knowledge
(C) it consists of independent and dependent variables
(D) it has utility and relevance

Answer: C

## Read the following passage carefully and answer the questions 11 to 15 :

Radically changing monsoon patterns, reduction in the winter rice harvest and a quantum increase in respiratory diseases all part of the environmental doomsday scenario which is reportedly playing out in South Asia. According to a United Nations Environment Programme report, a deadly three-kilometer deep blanket of pollution comprising a fearsome, cocktail of ash, acids, aerosols and other particles has enveloped in this region. For India, already struggling to cope with a drought, the implication of this are devastating and further crop failure will amount to a life and death question for many Indians. The increase in premature deaths will have adverse social and economic consequences and a rise in morbidities will place an unbearable burden on our crumbling health system. And there is no one to blame but ourselves. Both official and corporate India has always been allergic to any mention of clean technology. Most mechanical two wheelers roll of the assembly line without proper pollution control system. Little effort is made for R\&D on simple technologies, which could make a vital difference to people's lives and the environment.

However, while there is no denying that South Asia must clean up its act, skeptics might question the timing of the haze report. The Kyoto meet on climate change is just two weeks away and the stage is set for the usual battle between the developing world and the West, particularly the Unites States of America. President Mr. Bush has adamantly refused to sign any protocol, which would mean a change in American consumption level. U.N. environment report will likely find a place in the U.S. arsenal as it plants an accusing finger towards controls like India and China. Yet the U.S.A. can hardly deny its own dubious role in the matter of erasing trading quotas.

Richer countries can simply buy up excess credits from poorer countries and continue to pollute. Rather than try to get the better of developing countries, who undoubtedly have taken up environmental shortcuts in their bid to catch up with the West, the USA should take a look at the environmental profligacy, which is going on within. From opening up virgin territories for oil exploration to relaxing the standards for drinking water, Mr. Bush's policies are not exactly beneficial, not even to America's interests. We realize that we are all in this
together and that pollution anywhere should be a global concern otherwise there will only be more tunnels at the end of the tunnel.

Q11. Both official and corporate India is allergic to:
(A) Failure of Monsoon
(B) Poverty
and Inequality
(C) Slowdown in Industrial Production
(D) Mention of Clean

Technology
Answer: D

Q12. If the rate of premature death increases it will:
(A) Exert added burden on the crumbling economy
(B) Have adverse social and economic consequences
(C) Make positive effect on our effort to control population
(D) Have less job aspirants in the society

Answer: B

Q13. According to the passage, the two wheeler industry is not adequately concerned about:
(A) Passenger safety on the roads
(B) Life cover insurance of the vehicle owner
(C) Pollution control system in the vehicle
(D) Rising cost of the two wheelers

## Answer: C

Q14. What could be the reason behind timing of the haze report just before the Kyoto meet?
(A) United Nations is working hand-in-glove with U.S.A.
(B) Organizers of the forthcoming meet to teach a lesson to the U.S.A.
(C) Drawing attention of the world towards devastating effects of environment degradation.
(D) U.S.A. wants to use it as a handle against the developing countries in the forthcoming meet
Answer: D
Q15. Which of the following is the indication of environmental
degradation in South Asia?
(A) Social and economic inequality
(B) Crumbling health care system
(C) Inadequate pollution control system
(D) Radically changing monsoon pattern

## Answer: D

## Q16. Community Radio is a type of radio service that caters to the interest of:

(A) Local audience
(B) Education
(C) Entertainment
(D) News

Answer: A
Community radio is a radio service offering a third model of radio broadcasting in addition to commercial and public broadcasting. Community stations serve geographic communities and communities of interest. They broadcast content that is popular and relevant to a local, specific audience but is often overlooked by commercial or mass-media broadcasters. Community radio stations are operated, owned, and influenced by the communities they serve. They are generally nonprofit and provide a mechanism for enabling individuals, groups, and communities to tell their own stories, to share experiences and, in a media-rich world, to become creators and contributors of media.

## Q17. Orcut is a part of:

(A) Intra personal Communication
(B) Mass Communication
(C) Group Communication
(D) Interpersonal Communication

## Answer: D

Orkut was a social networking website owned and operated by Google. The service was designed to help users meet new and old friends and maintain existing relationships. Communication in small groups is interpersonal communication within groups of between 3 and 20 individuals. Groups generally work in a context that is both relational and social.

## Q18. Match List-I with List-II and select the correct answer using the codes given below:

## List-I

## List - II

## (Artists)

(a) Amrita Shergill
(b) T. Swaminathan Pillai
(c) Bhimsenjoshi
(d) Padma Subramaniyam

## Codes:

(a) (b) (c) (d)
(A) (iii) (i) (ii) (iv)
(B) (ii) (iii) (i) (iv)
(C) (iv) (ii) (iii) (i)
(D) (i) (iv)

Answer: A

## Q19. Which is not correct in latest communication award?

(A) Salman Rushdie - Booker's Prize - July 20, 2008
(B) Dilip Sanghavi
(C) Tapan Sinha - Dada Saheb Falke Award, July 21, 2008
(D) Gautam Ghosh - Osians Lifetime Achievement Award July 11, 2008 Answer: A
Goutam Ghose is one of the most acclaimed film directors, music director, and cinematographer of modern India, who works primarily in Bengali cinema. He won 16 National Awards (excld 2008) besides Filmfare Awards and many International awards like Silver Balloon Award, Nantes Film Festival, UNESCO Award, Cannes Film Festival, Grand Prix - Golden Semurg at Tashkent, UNESCO Award at Venice, Fipresci Awards, Red Cross Award at Verna Film Festival. Also the only Indian to win the coveted Vittorio Di Sica Award. Was awarded the Knighthood of the Star of the Italian Solidarity in July 2006.

## Q20. Firewalls are used to protect a communication network system against:

(A) Unauthorized attacks
(B) Virus attacks
(C) Data-driven attacks
(D) Fire-attacks

## Answer: A

In computing, a firewall is a network security system that monitors and controls the incoming and outgoing network traffic based on predetermined
security rules. A firewall typically establishes a barrier between a trusted, secure internal network and another outside network, such as the Internet, that is assumed to not be secure or trusted.

## Q21. Insert the missing number in the following:

2/3, 4/7, ?, 11/21, 16/31
(A) $10 / 8$
(B) $6 / 10$
(C) $5 / 10$
(D) $7 / 13$

Answer: D
$2 / 3=2 / 2 * 2-1$,
$4 / 7=4 / 4 * 2-1$,
$11 / 21=11 / 11 * 2-1$, and
$16 / 31=16 / 16 * 2-1$;
Therefore $7 / 13=7 / 7 * 2-1$.

Q22. In a certain code, GAMESMAN is written as AGMEMSAN. How would DISCLOSE be written in that code?
(A) IDSCOLSE
(B) IDCSOLES
(C) IDSCOLES
(D) IDSCLOSE

Answer: B
First two characters interchange the position and
Next two characters same again
Next 2 characters interchange the position and
Next 2 is same again.
Therefore DI SC LO SE decode as
IS SC OL SE
Q23. The letters in the first set have a certain relationship. On the basis of this relationship mark the right choice for the second set:
AST : BRU : : NQV : ?
(A) ORW
(B) MPU
(C) MRW
(D) OPW

Answer: D
Decode First character with Next Alphabet and
Previous Character with next Alphabet relationship
Therefore Decode N Q V with O P W

## Q24. On what dates of April 1994 did SUNDAY fall?

(A) $2,9,16,23,30$
(B) $3,10,17,24$
(C) $4,11,18,25$
(D) $1,8,15,22,29$

## Answer: B

Solution:. Let us find the day on 1st April, 1994.
2000 years have 0 odd day.
We have to calculate day on 1st April, 1994.
2000-1994 = 6 Years.
1996 is leap year and have 4 odd days
Ordinary years have 3 odd days.
Therefore $5 * 2=10+3=13$ days minus i.e ( 1 week +6 days)
Some codes o remember the months and weeks:
Sunday - 1
Monday - 2
Tuesday - 3
Wednesday - 4
Thursday - 5
Friday - 6
Saturday - 0
Therefore on 1 January 1994 there is Friday
For 1st April 1994
Jan. Feb. March
$31+29+31=91$ days $=(13$ weeks +0 day $)$.
Total number of odd days $=0$ odd days.
$\therefore$ 1st April 1994 was "Friday"
Thus, on $3^{\text {rd }}, 10^{\text {th }}, 17^{\text {th }}, 24^{\text {th }}$ will be Sunday fall on April 1994.
Q25. Find out the wrong number in the sequence:
125, 127, 130, 135, 142, 153, 165
(A) 130
(B) 142
(C) 153
(D) 165

Answer: C
Difference 125 and 127 is 2, then $3,5,7,11$, and 12 .
Except 12 all are prime numbers so 165 is wrong in series.

Q26. There are five books $A, B, C, D$ and $E$. The book $C$ lies above $D$, the book $E$ is below $A$ and $B$ is below $E$. Which is at the bottom?
(A) E
(B) B
(C) A
(D) C

Answer: B
According to discribtion the order is top to bottom is C, D, A, E, B, So B is at bottom.

Q27. Logical reasoning is based on:
(A) Truth of involved propositions
(B) Valid relation among the involved propositions
(C) Employment of symbolic language
(D) Employment of ordinary language

Answer: B

Q28. Two propositions with the same subject and predicate terms but different in quality are:
(A) Contradictory
(B) Contrary
(C) Subaltern
(D) Identical

Answer: C

Q29. The premises of a valid deductive argument:
(A) Provide some evidence for its conclusion
(B) Provide no evidence for its conclusion
(C) Are irrelevant for its conclusion
(D) Provide conclusive evidence for its conclusion

Answer: D

Q30. Syllogistic reasoning is:
(A) Deductive
(B) Inductive
(C) Experimental
(D) Hypothetical
Answer: A

Three circles representing GRADUATES, CLERKS and GOVERNMENT EMPLOYEES are intersecting. The intersections are marked A, B, C, e, f, g and $h$. Which part best represents the statements in questions 31 to 33 ?

Q31. Some Graduates are Government employees but not as Clerks.
(A) h
(B) g
(C) f
(D) e

Answer: C
The part f best represents the Some Graduates are Government employees but not as Clerk.

Q32. Clerks who are graduates as well as government employees:
(A) e
(B) f
(C) g
(D) $h$

Answer: D
The part h best represents the Clerks who are graduates as well as government employees:

Q33. Some graduates are Clerks but not Government employees.
(A) f
(B) $g$
(C) h
(D) e

Answer: D
The part e best represents Some graduates are Clerks but not Government employees.

Study the following graph and answer questions numbered from 34 to 35 :


Q34. Which of the firms got maximum profit growth rate in the year 2006?
(A) $a b$
(B) ce
(C) cd
(D) ef

Answer: B
The firms ce got maximum profit growth rate in the year 2006.
Q35. Which of the firms got maximum profit growth rate in the year 2007?
(A) bdf
(B) acf
(C) bcd
(D) ace

Answer: A
The firms bdf got maximum profit growth rate in the year 2007.
Q36. The accounting software 'Tally' was developed by:
(A) HCL
(D) Wipro
Answer: B

Q37. Errors in computer programmes are called:
(A) Follies
(B) Mistakes
(C) Bugs
(D) Spam

Answer: C

Q38. HTML is basically used to design:
(A) Web-page
(B) Web-site
(C) Graphics
(D) Tables and Frames

Answer: A
Q39. 'Micro Processing' is made for:
(A) Computer
(C) Calculator
(B) Digital System
Answer: A
(D) Electronic Goods

Q40. Information, a combination of graphics, text, sound, vide $o$ and animation is called:
(A) Multiprogramme
(B) Multifacet
(C) Multimedia
(D) Multiprocess
Answer: C

Q41. Which of the following pairs regarding typical composition of hospital wastes is incorrect?
(A) Plastic - $9-12 \%$
(B) Metals

- 1-2\%
(C) Ceramic
- $8-10 \%$
(D) Biodegradable
- 35-40\%

Answer: A

Q42. Fresh water achieves its greatest density at:
(A) $-4^{\circ} \mathrm{C}$
(B) $0^{\circ} \mathrm{C}$
(C) $4^{\circ} \mathrm{C}$
(D) $-2.5^{\circ} \mathrm{C}$

Answer: C

Q43. Which one of the following is not associated with earthquakes?
(A) Focus
(B) Epicenter
(C) Seismograph
(D) Swells
Answer: D

Q44. The tallest trees in the world are found in the region:
(A) Equatorial region
(B) Temperate region
(C) Monsoon region
(D) Mediterranean region
Answer: A

Q45. Match List-I with List-II and select the correct answer from the codes given below:

## List-I

(National Parks)
(a) Periyar
(b) Nandan Kanan
(c) Corbett National Park
(d) Sariska Tiger Reserve

## Codes:

(a) (b) (c)
(A) (ii) (i) (iv) (iii)
(B) (i) (ii) (iv) (iii)
(C) (iii) (ii) (i) (iv)
(D) (i) (ii) (iii) (iv)

Answer: A
Q46. According to Radhakrishnan Commission, the aim of Higher Education is:
(A) To develop the democratic values, peace and harmony
(B) To develop great personalities who can give their contributions in politics, administration, industry and commerce
(C) Both (A) and (B)
(D) None of these

## Answer: C

The Government of India appointed a university Education Commission under the chairmanship of Dr. Radhakrishnan in November 1948. The Commission made a number of significant recommendations on various aspects of higher education and submitted its report in August 1949. In the rapidly changing contemporary world, universities are undergoing profound changes in their scope, function and organisation and are in a process of rapid evolution.

## Q47. The National Museum at New Delhi is attached to:

(A) Delhi University
(B) a Deemed University
(C) a Subordinate Office of the JNU
(D) Part of Ministry of Tourism and Culture

## Answer: D

The National Museum in New Delhi is one of the largest museums in India.

Established in 1949, it holds variety of articles ranging from pre-historic era to modern works of art. It functions under the Ministry of Culture, Government of India. The museum is situated on the corner of Janpath and Maulana Azad Road.

Q48. Match List-I with List-II and select the correct answer from the code given below:

## List-I <br> (Institutions)

(a) National Law Institute
(b) Indian Institute of Advanced Studies
(c) National Judicial Academy
(d) National Savings Institute

## Codes:

(a) (b) (c) (d)
(A) (iii) (ii) (iv) (i)
(B) (i) (ii) (iii) (iv)
(C) (iv) (iii) (i) (ii)
(D) (iii) (i) (ii) (iv)

Answer: D
Q49. Election of Rural and Urban local bodies are conducted and ultimately supervised by:
(A) Election Commission of India
(B) State Election Commission
(C) District Collector and District Magistrate
(D) Concerned Returning Officer

## Answer: B

1) National Law Institute University (NLIU) is a law school and centre for research located in Bhopal, India. Established in 1997 by the State of Madhya Pradesh. 2) The Indian Institute of Advanced Study (IIAS) is a research institute based in Shimla, India. It was set up by the Ministry of Education, Government of India in 1964 and it started functioning from October 20, 1965. 3) National Judicial Academy is an Indian government-funded training institute primarily for Judicial Officers, working in the Supreme Court and the High Courts, during their service. Its 63 -acre campus is located in the outskirts of

Bhopal. 4) National Savings Institute was set up in 1948 in the name of national Savings Organization and is governed by the Union Ministry of Finance under the Department of Economic Affairs, Government of India. It is mainly focused upon gathering of small savings. The headquarters of the national savings institute is at Nagpur.

## Q50. Which opinion is not correct?

(A) Education is a subject of concurrent list of VII schedule of Constitution of India
(B) University Grants Commission is a statutory body
(C) Patent, inventions, design, copyright and trademarks are the subject of concurrent list
(D) Indian Council of Social Science Research is a statutory body related to research in social sciences
Answer: C
State Election Commission: The power of superintendence, direction and control of all elections to the local government bodies vest with the State Election Commissions as envisaged in Article 243K of the Constitution of India. It was meant to provide constitutional sanction to establish "democracy at the grassroots level as it is at the state level or national level" The State Election Commissioner has several unique powers pertaining to the elections to Local Bodies, which include the following. SEC chairs the Delimitation Commission which delimits local government constituencies. He has full powers to conduct local government elections including disciplinary powers over staff who are on election duty and assigns reserved posts and constituencies. The SEC can disqualify candidates who do not submit election accounts, members found guilty of defection and elected representative who do not convene the Grama Sabha. 2) The Election Commission of India is an autonomous, established federal authority responsible for administering all the electoral processes in the Republic of India. Under the supervision of the commission, free and fair elections have been held in India at regular intervals as per the principles enshrined in the Indian Constitution. The Election Commission has the power of superintendence, direction and control of all elections to the Parliament of India and the state legislatures and of elections to the office of the President of India and the Vice-President of India

## 9. Paper - I June - 2009

Q1. Good evaluation of written material should not be based on:
(A) Linguistic expression
(B) Logical presentation
(C) Ability to reproduce whatever is read
(D) Comprehension of subject

Answer: D

Q2. Why do teachers use teaching aid?
(A) To make teaching fun-filled
(B) To teach within understanding level of students
(C) For students' attention
(D) To make students attentive

Answer: B

Q3. Attitudes, concepts, skills and knowledge are products of:
(A) Learning
(C) Heredity

Answer: A

Q4. Which among the following gives more freedom to the learner to interact?
(A) Use of film
(B) Small group discussion
(C) Lectures by experts
(D) Viewing country-wide classroom programme on TV

Answer: B

Q5. Which of the following is not a product of learning?
(A) Attitudes
(B) Concepts
(C) Knowledge
(D) Maturation

Answer: D
Q6. How can the objectivity of the research be enhanced?
(A) Through its impartiality
(B) Through its reliability
(C) Through its validity
(D) All of these

Answer: D
Q7. Action-research is:
(A) An applied research
(B) A research carried out to solve immediate problems
(C) A longitudinal research
(D) All the above

Answer: B

Q8. The basis on which assumptions are formulated:
(A) Cultural background of the country
(B) Universities
(C) Specific characteristics of the castes
(D) All of these

Answer: A
Q9. Which of the following is classified in the category of the developmental research?
(A) Philosophical research
(B) Action research
(C) Descriptive research
(D) All the above
Answer: D

## Q10. We use Factorial Analysis:

(A) To know the relationship between two variables
(B) To test the Hypothesis
(C) To know the difference between two variables
(D) To know the difference among the many variables

Answer: C
Read the following passage and answer the questions 11 to 15:

While the British rule in India was detrimental to the economic development of the country, it did help in starting of the process of modernizing Indian society and formed several progressive institutions during that process. One of the most beneficial institutions, which were initiated by the British, was democracy. Nobody can dispute that despite its many shortcomings, democracy was and is far better alternative to the arbitrary rule of the rajas and nawabs, which prevailed in India in the pre-British days.
However, one of the harmful traditions of British democracy inherited by India was that of conflict instead of cooperation between elected members. This was its essential feature. The party, which got the support of the majority of elected members, formed the Government while the others constituted a standing opposition. The existence of the opposition to those in power was and is regarded as a hallmark of democracy.
In principle, democracy consists of rule by the people; but where direct rule is not possible, it's rule by persons elected by the people. It is natural that there would be some differences of opinion among the elected members as in the rest of the society.
Normally, members of any organizations have differences of opinion between themselves on different issues but they manage to work on the basis of a consensus and they do not normally form a division between some who are in majority and are placed in power, while treating the others as in opposition.
The members of an organization usually work on consensus. Consensus simply means that after an adequate discussion, members agree that the majority opinion may prevail for the time being. Thus persons who form a majority on one issue and whose opinion is allowed to prevail may not be on the same side if there is a difference on some other issue.
It was largely by accident that instead of this normal procedure, a two party system came to prevail in Britain and that is now being generally taken as the best method of democratic rule.
Many democratically inclined persons in India regret that such a two party system was not brought about in the country. It appears that to have two parties in India - of more or less equal strength - is a virtual impossibility. Those who regret the absence of a two-party system should take the reasons into consideration.
When the two party system got established in Britain, there were two groups among the rules (consisting of a limited electorate) who had the same
economic interests among themselves and who therefore formed two groups within the selected members of Parliament.
There were members of the British aristocracy (which landed interests and consisting of lord, barons etc) and members of the new commercial class consisting of merchants and artisans. These groups were more or less of equal strength and they were able to establish their separate rule at different times.

Q11. In pre-British period, when India was ruled by the independent rulers:
(A) Peace and prosperity prevailed in the society
(B) People were isolated from political affairs
(C) Public opinion was inevitable for policy making
(D) Law was equal for one and all

Answer: C

## Q12. What is the distinguishing feature of the democracy practiced in Britain?

(A) End to the rule of might is right.
(B) Rule of the people, by the people and for the people.
(C) It has stood the test of time.
(D) Cooperation between elected members.

## Answer: B

## Q13. Democracy is practiced where:

(A) Elected members form a uniform opinion regarding policy matter.
(B) Opposition is more powerful than the ruling combine.
(C) Representatives of masses.
(D) None of these.

## Answer: A

## Q14. Which of the following is true about the British rule in India?

(A) It was behind the modernization of the Indian society.
(B) India gained economically during that period.
(C) Various establishments were formed for the purpose of progress.
(D) None of these.

## Answer: A

Q15. Who became the members of the new commercial class during that time?
(A) British Aristocrats
(B) Lord and barons
(C) Political Persons
(D) Merchants and artisans

Answer: D
Q16. Which one of the following Telephonic Conferencing with a radio link is very popular throughout the world?
(A) TPS
(B) Telepresence
(C) Video conference
(D) Video teletext

Answer: C
Videoconferencing (VC) is the conduct of a videoconference by a set of telecommunication technologies which allow two or more locations to communicate by simultaneous two-way video and audio transmissions. It has also been called 'visual collaboration' and is a type of groupware.
Videoconferencing differs from videophone calls in that it's designed to serve a conference or multiple locations rather than individuals.

Q17. Which is not $\mathbf{2 4}$ hours news channel?
(A) NDTV24x7
(B) ZEE News
(C) Aajtak
(D) Lok Sabha channel

## Answer: D

LOK SABHA TELEVISION: is a Parliament Channel mandated to telecast live the proceedings of the Lok Sabha? the House of the People of the Indian Parliament. The Channel also produces and telecasts a whole range of programmes of general interest on issues relating to democracy, governance, social, economic and constitutional issues and citizens? concerns. Debates, discussions and documentaries, as well as programmes on culture and awardwinning films in different Indian languages are important elements in the programmes of the channel.

Q18. The main objective of F.M. station in radio is:
(A) Information, Entertainment and Tourism
(B) Entertainment, Information and Interaction
(C) Tourism, Interaction and Entertainment

## (D) Entertainment only

## Answer: B

News is not permitted on private FM. Nationally, many of the current FM players, including the Times of India, Hindustan Times, Mid-Day, and BBC are essentially newspaper chains or media, and they are making a strong pitch for news on FM. Private FM stations are allowed to rebroadcast news from All India Radio, as long as they do so without any changes or additions.The Supreme Court of India on 17 October 2013 issued a public interest litigation to the Centre requesting that the rules should be changed to allow FM stations to broadcast news reports.

## Q19. In communication chatting in internet is:

(A) Verbal communication
(B) Non verbal communication
(C) Parallel communication
(D) Grapevine communication

Answer: C
Communication are of two main parts : One is verbal communication and the other is non verbal communication.
Communication based on style and purpose we can categorize it into two main parts, formal and informal communication. We can categorize verbal communication into two parts, oral communication and written communication. Oral communication is when two or more parties communicate verbally with words. The conversation can be short range or long range. Spoken conversation is of a short range and communicating through a telephone or voice chat over the internet. The other type is written communication. Written communication can happen through normal mail, e-mail, or any other form of documented writing. Non-verbal communication is mostly body language. It is possible to understand what a person is trying to say or how he/she is feeling. It is also possible to tell the mood of a person by bodily and facial expressions. Facial expressions are very important as well. Facial expressions give out what the person is feeling. The face is the first thing we notice in a person and the facial muscles give out most of the human expressions. Pictures, sign boards and photographs are also a part of non-verbal communication.

## Q20. Match List-I with List-II and select the correct answer using the codes given below:

(Artists)
(a) Pandit Jasraj
(Art)
(b) Kishan Maharaj
(c) Ravi Shankar
(d) Udai Shankar

Codes:
(a) (b) (c) (d)
(A) (i) (ii) (iii) (iv)
(B) (i) (iii) (iv) (ii)
(C) (i) (iii) (ii) (iv)
(D) (iii) (ii) (i) (iv)

Answer: C

Q21. Insert the missing number in the following:
3, 8, 18, 23, 33, ?, 48
(A) 37
(B) 40
(C) 38
(D) 45

Answer: C
The Difference between 2 number in series is 5 then 10,5 then 10 .
Therefore after $33+5=38$.

Q22. In a certain code, CLOCK is written as KCOLC. How would STEPS be written in that code?
(A) SPEST
(B) SPSET
(C) SPETS
(D) SEPTS

Answer: C
Write Given Code in Reverse order ie STEPS ---> SPETS.

Q23. The letters in the first set have a certain relationship. On the basis of this relationship mark the right choice for the second set:
BDFH : OMKI : : GHIK : ?
(A) FHJL
(B) RPNL
(C) LNPR
(D) LJHF

Answer: No one Option is Correct Answer.
Correct answer is TQNL
1234567891011121314151617181920212223242526

## ABCDEFGHIJKLMNOPQRSTUVWXYZ

Q24. What was the day of the week on 1st January 2001?
(A) Friday
(B) Tuesday
(C) Sunday
(D) Wednesday

Answer: No one Option is Correct Answer.
Correct answer is Monday
Q25. Find out the wrong number in the sequence.
52, 51, 48, 43, 34, 27, 16
(A) 27
(B) 34
(C) 43
(D) 48

Answer: B
The series is decreese with order $1,3,5,7,9,11$.
Therefore expected series will be $52,51,48,43,36,27,16$.
Hence 34 is wrong in seriese there must be 36 .
Q26. In a deductive argument conclusion is:
(A) Summing up of the premises
(B) Not necessarily based on premises
(C) Entailed by the premises
(D) Additional to the premises

Answer: C
Q27. 'No man are mortal' is contradictory of:
(A) Some man are mortal
(B) Some man are not mortal
(C) All men are mortal
(D) No mortal is man

Answer: A

## Q28. A deductive argument is valid if:

(A) premises are false and conclusion true
(B) premises are false and conclusion is also false
(C) premises are true and conclusion is false
(D) premises are true and conclusion is true

Answer: D

Q29. Structure of logical argument is based on:
(A) Formal validity
(B) Material truth
(C) Linguistic expression
(D) Aptness of examples

Answer: A

Q30. Two ladies and two men are playing bridge and seated at North, East, South and West of a table. No lady is facing East. Persons sitting opposite to each other are not of the same sex. One man is facing South. Which direction are the ladies facing to?
(A) East and West
(B) North and West
(C) South and East
(D) None of these

Answer: B

Questions 31 and 32 are based on the following Venn diagram in which there are three intersecting circles representing Hindi knowing persons, English knowing persons and persons who are working as teachers. Different regions so obtained in the figure are marked as $a, b, c, d, e, f$ and g.

Q31. If you want to select Hindi and English knowing teachers, which of the following is to be selected?
(A) g
(B) b
(C) c
(D) e

Answer: C

Q32. If you want to select persons, who do not know English and are not teachers, which of the region is to be selected?
(A) e
(B) g
(C) b
(D) a

## Answer: B

Study the following graph carefully and answer questions 33 to 35 :
Export of Engineering Goods

- Quantity in Lakh tonnes


Q33. In which year the quantity of engineering goods' exports was maximum?
(A) 2005
(B) 2006
(C) 2004
(D) 2007

Answer: B

Q34. In which year the value of engineering goods decreased by 50 percent compared to the previous year?
(A) 2004
(B) 2007
(C) 2005
(D) 2006

Answer: B

Q35. In which year the quantity of exports was 100 percent higher than the quantity of previous year?
(A) 2004
(B) 2005
(C) 2006
(D) 2007
Answer: C

Q36. What do you need to put your web pages on the www?
(A) a connection to internet
(B) a web browser
(C) a web server
(D) all of the above

Answer: D

Q37. Which was the first company to launch mobile phone services in India?
(A) Essar
(B) BPL
(C) Hutchison
(D) Airtel

## Answer: D

Q38. Chandrayan I was launched on 22nd October, 2008 in India from:
(A) Bangalore
(B) Sri Harikota
(C) Chennai
(D) Ahmedabad

Answer: B

Q39. What is blog?
(A) Online music
(B) Intranet
(C) A personal or corporate website in the form of an online journal
(D) A personal or corporate Google search

Answer: C

Q40. Which is not online Indian Matrimonial website?
(A) www.jeevansathi.com
(B) www.bharatmatrimony.com
(C) www.shaadi.com
(D) www.u.k.singlemuslim.com

Answer: D
Q41. Environmental impact assessment is an objective analysis of the probable changes in:
(A) physical characteristics of the environment
(B) biophysical characteristics of the environment
(C) socio-economic characteristics of the environment
(D) all the above

Answer: D

Q42. Bog is a wetland that receives water from:
(A) nearby water bodies
(B) melting
(C) rain fall only
(D) sea only

Answer: C

Q43. Which of the following region is in the very high risk zone of
earthquakes?
(A) Central Indian Highland
(B) Coastal region
(C) Himalayan region
(D) Indian desert

Answer: C

Q44. Match List-I with List-II and select the correct answer using the codes given below:

| List-I | List-II |
| :---: | :---: |
| (Institutes) | (Cities) |

(a) Central Arid Zone Institute
(i) Kolkata
(b) Space Application Centre
(ii) New Delhi
(c) Indian Institute of Public Administration
(iii) Ahmedabad
(d) Headquarters of Indian Science Congress
(iv) Jodhpur

Codes:
(a) (b) (c)
(d)
(A) (iv) (iii) (ii)
(B) (iv) (ii) (i) (iii)
(C) (iii)
(i) (ii) (iv)
(D) (i)
(ii) (iv) (iii)

Answer: A

Q45. Indian coastal areas experienced Tsunami disaster in the year:
(A) 2005
(B) 2004
(C) 2006
(D) 2007

Answer: B

Q46. The Kothari Commission's report was entitled on:
(A) Education and National Development
(B) Learning to be adventure
(C) Diversification of Education
(D) Education and socialization in democracy

## Answer: A

EDUCATION AND NATIONAL DEVELOPMENT Indian Education
Commission (1964-1966), popularly known as Kothari Commission, was an ad hoc commission set up by the Government of India to examine all aspects of
the educational sector in India, to evolve a general pattern of education and to advise guidelines and policies for the development of education in India. It was formed on 14 July 1964 under the chairmanship of Daulat Singh Kothari, then chairman of the University Grants Commission. The terms of reference of the commission was to formulate the general principles and guidelines for the development of education from primary level to the highest and advise the government on a standardized national pattern of education in India

## Q47. Which of the following is not a Dualmode University?

(A) Delhi University
(B) Bangalore University
(C) Madras University
(D) Indira Gandhi National Open University

## Answer: D

When the Indira Gandhi National Open University (IGNOU) was established in 1985, the prime objective of the legislature was to democratize higher education and provide educational opportunities to those who could not attend the conventional face-to-face institutions for various reasons. IGNOU was also mandated to promote distance education and maintain the quality of distance education in India. The IGNOU Act also emphasized that IGNOU will use innovative educational technologies to deliver its degrees.

## Q48. Which part of the Constitution of India is known as "Code of Administrators" ?

(A) Part I
(B) Part II
(C) Part III
(D) Part IV

Answer: D, PART IV : DIRECTIVE PRINCIPLES OF STATE POLICY.
Q49. Which article of the constitution provides safeguards to Naga Customary and their social practices against any act of Parliament?
(A) Article 371 A
(B) Article 371 B
(C) Article 371 C
(D) Article 263

## Answer: A

371A. Special provision with respect to the State of Nagaland. (1)
Notwithstanding anything in this Constitution,? a) no Act of Parliament in
respect of? (i) religious or social practices of the Nagas, (ii) Naga customary law and procedure, (iii) administration of civil and criminal justice involving decisions according to Naga customary law, (iv) ownership and transfer of land and its resources, b) the Governor of Nagaland shall have special responsibility with respect to law and order in the State of Nagaland for so long as in his opinion internal disturbances occurring in the Naga HillsTuensang Area immediately before the formation of that State continue therein or in any part thereof and in the discharge of his functions in relation thereto the Governor shall, after consulting the Council of Ministers, exercise his individual judgment as to the action to be taken. c) in making his recommendation with respect to any demand for a grant, the Governor of Nagaland shall ensure that any money provided by the Government of India out of the Consolidated Fund of India for any specific service or purpose is included in the demand for a grant relating to that service or purpose and not in any other demand

## Q50. Which one of the following is not the tool of good governance?

(A) Right to information
(C) Social Auditing
(B) Citizens' Charter
(D) Judicial Activism

## Answer: D

Judicial activism refers to judicial rulings suspected of being based on personal or political considerations rather than on existing law. The definition of judicial activism, and which specific decisions are activist, is a controversial political issue, particularly in the United States. The question of judicial activism is closely related to constitutional interpretation, statutory construction, and separation of powers. 3) A social audit is a way of measuring, understanding, reporting and ultimately improving an organization's social and ethical performance. A social audit helps to narrow gaps between vision/goal and reality, between efficiency and effectiveness

## 10. Paper - I December - 2009

Q1. The University which telecasts interaction educational programmes through its own channel is
(A) Osmania University
(B) University of Pune
(C) Annamalai University
(D) Indira Gandhi National Open University (IGNOU)

Answer: D
Q2. Which of the following skills are needed for present day teacher to adjust effectively with the classroom teaching?

1. Knowledge of technology
2. Use of technology in teaching learning
3. Knowledge of students' needs
4. Content mastery
(A) $1 \& 3$
(B) $2 \& 3$
(C) $2,3 \& 4$
(D) $2 \& 4$

## Answer: C

## Q3. Who has signed an MOU for Accreditation of Teacher

 Education Institutions in India?(A) NAAC and UGC
(B) NCTE and NAAC
(C) UGC and NCTE
(D) NCTE and IGNOU

Answer: B
(NCTE - National Council of Teacher Education, NAAC - National Accreditation and Assessment Council)
For achieving professional objectives an MOU was signed on 16th August 2002 by the National Council for Teacher Education and the National Assessment and Accreditation Council. As follow up activities to the MOU, the NCTE and the NAAC have developed a manual for self-assessment of teacher education institutions, constituted a steering group for planning and
monitoring assessment and accreditation of teacher education institutions and planned the Pune Conference on the theme 'Self appraisal and Accreditation of Teacher Education Institutions as a Development-oriented Process'.
The scheme of assessment and accreditation will help institutions to carry out their strength, weakness, opportunity and threat analysis, and in making their programmes more attractive to the students and to their potential employers. The norms and standards evolve with strengthening of the capacity of the system and commitment for raising the quality of the programme, which will be revealed by the system of assessment and accreditation. The NCTE is now looking forward to using assessment and accreditation as an effective instrument for determination and maintenance of norms and standards for teacher education programmes.

## Q4. The primary duty of the teacher is to

(A) raise the intellectual standard of the students
(B) improve the physical standard of the students
(C) help all round development of the students
(D) imbibe value system in the students

## Answer: C

## Q5. Micro teaching is more effective

(A) during the preparation for teaching-practice
(B) during the teaching-practice
(C) after the teaching-practice
(D) always

Answer: A
Microteaching is organized practice teaching. The goal is to give instructors confidence, support, and feedback by letting them try out among friends and colleagues a short slice of what they plan to do with their students.

## Q6. What quality the students like the most in a teacher?

(A) Idealist philosophy
(C) Discipline
(B) Compassion
Answer: B

## Q7. A null hypothesis is

(A) when there is no difference between the variables
(B) the same as research hypothesis
(C) subjective in nature
(D) when there is difference between the variables

## Answer: A

Q8. The research which is exploring new facts through the study of the past is called
(A) Philosophical research
(B) Historical research
(C) Mythological research
(D) Content analysis
Answer: B

## Q9. Action research is

(A) An applied research
(B) A research carried out to solve immediate problems
(C) A longitudinal research
(D) Simulative research

Answer: B

Q10. The process not needed in Experimental Researches is
(A) Observation
(B) Manipulation
(C) Controlling
(D) Content Analysis

Answer: D

## Q11. Manipulation is always a part of

(A) Historical research
(B) Fundamental research
(C) Descriptive research
(D) Experimental research
Answer: D

Q12. Which correlation co-efficient best explains the relationship between creativity and intelligence?
(A) 1.00
(B) 0.6
(C) 0.5
(D) 0.3

Answer: B
Read the following passage and answer the Question Nos. 13 to 18 :

The decisive shift in British Policy really came about under mass pressure in the autumn and winter of 1945 to 46 - the months which Perderel Moon while editing Wavell's Journal has perceptively described as 'The Edge of a Volcano'. Very foolishly, the British initially decided to hold public trials of several hundreds of the 20,000 I.N.A. prisoners (as well as dismissing from service and detaining without trial no less than 7,000). They compounded the folly by holding the first trial in the Red Fort, Delhi in November 1945, and putting on the dock together a Hindu, a Muslim and a Sikh (P.K. Sehgal, Shah Nawaz, Gurbaksh Singh Dhillon). Bhulabhai Desai, Tejbahadur Sapru and Nehru appeared for the defence (the latter putting on his barrister's gown after 25 years), and the Muslim League also joined the countrywide protest. On 20 November, an Intelligence Bureau note admitted that "there has seldom been a matter which has attracted so much Indian public interest and, it is safe to say, sympathy ... this particular brand of sympathy cuts across communal barriers.' A journalist (B. Shiva Rao) visiting the Red Fort prisoners on the same day reported that 'There is not the slightest feeling among them of Hindu and Muslim ... A majority of the men now awaiting trial in the Red Fort is Muslim. Some of these men are bitter that Mr. Jinnah is keeping alive a controversy about Pakistan.' The British became extremely nervous about the I.N.A. spirit spreading to the Indian Army, and in January the Punjab Governor reported that a Lahore reception for released I.N.A. prisoners had been attended by Indian soldiers in uniform.

## Q13. Which heading is more appropriate to assign to the above

 passage?(A) Wavell's Journal
(B) Role of Muslim League
(C) I.N.A. Trials
(D) Red Fort Prisoners

Answer: C

## Q14. The trial of P.K. Sehgal, Shah Nawaz and Gurbaksh Singh Dhillon symbolises

(A) communal harmony
(B) threat to all religious persons
(C) threat to persons fighting for the freedom
(D) British reaction against the natives

## Answer: A

Q15. I.N.A. stands for
(A) Indian National Assembly
(B) Indian National Association
(C) Inter-national Association
(D) Indian National Army

Answer: D

Q16. 'There has seldom been a matter which has attracted so
much Indian Public Interest and, it is safe to say, sympathy ... this particular brand of sympathy cuts across communal barriers.'
Who sympathises to whom and against whom?
(A) Muslims sympathised with Shah Nawaz against the British
(B) Hindus sympathised with P.K. Sehgal against the British
(C) Sikhs sympathised with Gurbaksh Singh Dhillon against the British
(D) Indians sympathised with the persons who were to be trialled

Answer: D

Q17. The majority of people waiting for trial outside the Red Fort and criticising Jinnah were the
(A) Hindus
(B) Muslims
(C) Sikhs
(D) Hindus and Muslims both

Answer: B

Q18. The sympathy of Indian soldiers in uniform with the released I.N.A. prisoners at Lahore indicates
(A) Feeling of Nationalism and Fraternity
(B) Rebellious nature of Indian soldiers
(C) Simply to participate in the reception party
(D) None of the above

Answer: A

Q19. The country which has the distinction of having the two largest circulated newspapers in the world is
(A) Great Britain
(B) The United States
(C) Japan
(D) China

## Answer: D

In 2005, China topped the list in term of total newspaper circulation with 93.5 million a day, India came second with 78.8 million, followed by Japan, with 70.4 million; theUnited States, with 48.3 million; and Germany, with 22.1 million.

Q20. The chronological order of non-verbal communication is
(A) Signs, symbols, codes, colours
(B) Symbols, codes, signs, colours
(C) Colours, signs, codes, symbols
(D) Codes, colours, symbols, signs

Answer: A
Signs, symbols, codes, colours
Nonverbal communication between people is communication through sending and receiving wordless cues.
Anything that is not said can be a communication--a gesture, a smile, a wink, a slouching posture and others.

Q21. Which of the following statements is not connected with communication?
(A) Medium is the message.
(B) The world is an electronic cocoon.
(C) Information is power.
(D) Telepathy is technological.

Answer: D

## Q22. Communication becomes circular when

(A) the decoder becomes an encoder
(B) the feedback is absent
(C) the source is credible
(D) the channel is clear

## Answer: A

Circular (contextual) Discussion is conducted in a circular manner, telling stories and developing a context around the main point, which is often unstated because the listener will get the point after I give them all the information. There is a high reliance on context.

Q23. The site that played a major role during the terrorist attack on Mumbai (26/11) in 2008 was
(A) Orkut
(C) Amazon.com
(D) Twitter
(B) Facebook

## Answer: A

The gunman who survived said that the attackers had used Google Earth to familiarise themselves with the locations of buildings used in the attacks.
The Mumbai attack perpetrated by Pakistan-based LeT was an example of how terror outfits use latest available IT tools for their decisive motives, a top US commander has said, highlighting the role of cyber space in such events. "All the mission planning (for Mumbai terrorist attack) was done via Google Earth. There was no investment in technology of (intelligence, surveillance and reconnaissance) platforms or anything like that

Q24. Assertion (A): For an effective classroom communication at times it is desirable to use the projection technology.
Reason (R): Using the projection technology facilitates extensive coverage of course contents.
(A) Both (A) and (R) are true, and (R) is the correct explanation.
(B) Both (A) and (R) are true, but (R) is not the correct explanation.
(C) (A) is true, but (R) is false.
(D) (A) is false, but (R) is true.

Answer: B
Q25. January 1, 1995 was a Sunday. What day of the week lies on January 1, 1996?
(A) Sunday
(B) Monday
(C) Wednesday
(D) Saturday

Answer: B
Q26. When an error of $1 \%$ is made in the length and breadth of a rectangle, the percentage error (\%) in the are of a rectangle will be
(A) 0
(B) 1
(C) 2
(D) 4

Answer: B

Suppose length is 10 and bredth is 10 then area is 100 , $1 \%$ error then $9.9 * 9.9=98.01$.
Hence $2 \%$ error will be there.
Q27. The next number in the series $2,5,9,19,37$, ? will be
(A) 74
(B) 75
(C) 76
(D) None of the above

Answer: B
$2 * 2=4+1=5$,
$5 * 2=10-1=9$,
$9 * 2=18+1=19$,
$19 * 2=38-1=37$,
$37 * 2=74+1=75$.
Q28. There are 10 true-false questions in an examination. Then these questions can be answered in
(A) 20 ways
(B) 100 ways
(C) 240 ways
(D) 1024 ways

Answer: A
If you have 10 questions, and 2 choices per question, then you have $2^{\wedge} 10$ $=1024$ possibilities.

Q29. What will be the next term in the following? DCXW, FEVU, HGTS, ?
(A) AKPO
(B) ABYZ
(C) JIRQ
(D) LMRS

Answer: C
in a given series Frist 2 letter is next 2 Alphabets
and next 2 letter is previous 2 Alphabet.
Therefore After HG TS ---> JI RQ
Q30. Three individuals $X, Y, Z$ hired a car on a sharing basis and paid Rs. 1,040. They used it for $\mathbf{7 , 8} \mathbf{8} 11$ hours, respectively. What are the charges paid by $\mathbf{Y}$ ?
(A) Rs. 290
(B) Rs. 320
(C) Rs. 360
(D) Rs. 440

## Answer: B

$\mathrm{X}, \mathrm{Y}, \mathrm{Z}$ used car for 26 hours i.e $7+8+11=26$ paid 1040.
Therefore, $1040 / 26=40$,
Y used for 8 hours i.e $40 * 8=320$.

Q31. Deductive argument involves
(A) sufficient evidence
(B) critical thinking
(C) seeing logical relations
(D) repeated observation
Answer: C

Q32. Inductive reasoning is based on or presupposes
(A) uniformity of nature
(B) God created the world
(C) unity of nature
(D) laws of nature

Answer: A

Q33. To be critical, thinking must be
(A) practical (B) socially
relevant
(C) individually satisfying
(D) analytical

Answer: D
Q34. Which of the following is an analogous statement?
(A) Man is like God
(B) God is great
(C) Gandhiji is the Father of the Nation
(D) Man is a rational being.

Answer: A
Questions from 35-36 are based on the following diagram in which there are three intersecting circles. $H$ representing The Hindu, I representing Indian Express and Trepresenting The Times of India. A total of 50 persons were surveyed and the number in the Venn diagram indicates the number of persons reading the newspapers.

Q35. How many persons would be reading at least two newspapers?
(A) 23
(B) 25
(C) 27
(D) 29

Answer: C
From Above figure 12 people read The Hindu and Indian Express. 2 People read The Hindu and Indian Express and Times of India. 8 People read The Hindu and Times of India. 5 People read Indian Express and Times of India. Therefore $12+2+8+5=27$ people reading at least two newspapers.

## Q36. How many persons would be reading almost two newspapers?

(A) 23
(B) 25
(C) 2
(D) 48

Answer: C
Only 2 persons read all three newspapers. Total 50 persons were surveyed Therefore, 50-2 = 48 Persons would be reading almost two newspapers.

Q37. Which of the following graphs does not represent regular (periodic) behavior of the variable $f(t)$ ?
4.

2.

3.


4. | +1 |  |
| ---: | ---: |
| $\mathrm{r}(\mathrm{t}$ |  |
| -1 | $\square$ |
|  | $\square$ |
| $t$ |  |$\rightarrow$

(A) 1
(B) 2
(C) 3
(D) 4

Answer: C
Graph $\mathbf{3}$ does not represent regular(periodic) behaviour of the variable $f(t)$

## Study the following graph and answer the questions 38 to 40 :



Q38. In which year total number of patients registered in hospital $X$ and hospital $Y$ was the maximum?
(A) 2003
(B) 2004
(C) 2005
(D) 2006

Answer: C
In year 2005 total number of patients registered in hospital X and hospital Y was $4000+12000=16000$.
In year 2001 total number of patients registered in hospital X and hospital Y was $6000+8000=14000$.
In year 2002 total number of patients registered in hospital X and hospital Y was $4000+10000=14000$.
In year 2002 total number of patients registered in hospital X and hospital Y was $6000+8000=14000$.
In year 2004 total number of patients registered in hospital X and hospital Y
was $4000+6000=10000$.
In year 2006 total number of patients registered in hospital X and hospital Y was $2000+4000=6000$.

Q39. What is the maximum dispersion in the registration of patients in the two hospitals in a year?
(A) 8000
(B) 6000
(C) 4000
(D) 2000

Answer: A
In year 2005 maximum dispersion in the registration of patients in the two hospitals $12000-4000=8000$.
In year 2001 maximum dispersion in the registration of patients in the two hospitals $8000-6000=2000$.
In year 2002 maximum dispersion in the registration of patients in the two hospitals was $10000-4000=6000$.
In year 2003 maximum dispersion in the registration of patients in the two hospitals $8000-6000=2000$.
In year 2004 maximum dispersion in the registration of patients in the two hospitals was $6000-4000=2000$.
In year 2006 maximum dispersion in the registration of patients in the two hospitals $+4000-2000=2000$.

Q40. In which year there was maximum decrease in registration of patients in hospital $X$ ?
(A) 2003
(B) 2004
(C) 2005
(D) 2006

## Answer: D

In 2005 year there was 12,000 registration of patients in hospital X. In 2006 year there was only 2,000 registration of patients in hospital X. Therefore 10,000 decrease in registration of patients in hostpital X which is maximum.

Q41. Which of the following sources of data is not based on primary data collection?
(A) Census of India
(B) National Sample Survey
(C) Statistical Abstracts of India
(D) National Family Health Survey

Answer: C

Q42. Which of the four data sets have more dispersion?
(A) 889190928991
(B) $01110-1-2$
(C) 352415
(D) $0 \begin{array}{lllllllll}5 & 8 & 10 & -2 & -8\end{array}$

## Answer: D

Q43. Which of the following is not related to information security on the Internet?
(A) Data Encryption
(B) Water marking
(C) Data Hiding
(D) Information Retrieval

Answer: D

Q44. Which is the largest unit of storage among the following?
(A) Terabyte
(B) Megabyte
(C) Kilobyte
(D) Gigabyte
Answer: A

Q45. bit stands for
(A) binary information term
(B) binary digit
(C) binary tree
(D) Bivariate
Theory
Answer: B

Q46. Which one of the following is not a line ar data structure?
(A) Array
(B) Binary Tree
(C) Queue
(D) Stack

Answer: B

Q47. Which one of the following is not a network device?
(A) Router
(B) Switch
(C) Hub
(D) CPU

## Answer: D

Q48. A compiler is used to convert the following to object code which can be executed
(A) High-level language
(B) Low-level language
(C) Assembly language
(D) Natural language

Answer: A

Q49. The great Indian Bustard bird is found in
(A) Thar Desert of Rajasthan
(B) Coastal regions of India
(C) Malabar Coast
(D) Delta regions

Answer: A

Q50. The Sagarmanthan National Park has been established to preserve the eco-system of which mountain peak?
(A) Kanchenjunga
(B) Mount Everest
(C) Annapurna
(D) Dhaulavira

## Answer: B

Q51. Maximum soot is released from
(A) Petrol vehicles
(B) CNG vehicles
(C) Diesel vehicles
(D) Thermal Power Plants

Answer: D

Q52. Surface Ozone is produced from
(A) Transport sector
(B) Cement plants
(C) Textile industry
(D) Chemical industry

Answer: D

Q53. Which one of the following non-conventional energy sources can be exploited most economically?
(A) Solar
(B) Wind
(C) Geo-thermal
(D) Ocean Thermal Energy Conversion (OTEC)

Answer: A
Q54. The most recurring natural hazard in India is
(A) Earthquakes
(B) Floods
(C) Landslides
(D) Volcanoes

Answer: B

Q55. The recommendation of National Knowledge Commission for the establishment of $\mathbf{1 5 0 0}$ Universities is to
(A) create more teaching jobs
(B) ensure increase in student enrolment in higher education
(C) replace or substitute the privately managed higher education institutions by public institutions
(D) enable increased movement of students from rural areas to urban areas

Answer: B
National Knowledge Commission of the Government of India on Higher Education lays down certain guidelines for the betterment of the system. The NKC recommendations on higher education were submitted to the Prime Minister on 29th November 2006. The report focused on the need for excellence in the system, expansion of the higher education sector in the country, and providing access to higher education for larger numbers of students.

Q56. According to Article 120 of the Constitution of India, the business in Parliament shall be transacted in
(A) English only
(B) Hindi only
(C) English and Hindi both
(D) All the languages included in Eighth Schedule of the Constitution

## Answer: B

Article 120: Language to be used in Parliament 1) Notwithstanding anything in part XVII, but subject to the provisions of article 348, business in Parliament shall be transacted in Hindi or in English: Provided that the Chairman of the Council of States or Speaker of the House of the People, or person acting as such, as the case may be, may permit any member who cannot adequately
express himself in Hindi or in English to address the House in his mothertongue

Q57. Which of the following is more interactive and student centric?
(A) Seminar
(B) Workshop
(C) Lecture
(D) Group Discussion

## Answer: D

Group Discussion is a modern method of assessing students personality. It is both a technique and an art and a comprehensive tool to judge the worthiness of the student and his appropriateness for the job. The term suggests a discussion among a group of persons. The group will have $8 \& 12$ members who will express their views freely,frankly in a friendly manner, on a topic of current issue. Within a time limit of 20 to 30 minutes, the abilities of the members of the group is measured.

## Q58. The Parliament in India is composed of

(A) Lok Sabha \& Rajya Sabha
(B) Lok Sabha, Rajya Sabha \& Vice President
(C) Lok Sabha, Rajya Sabha \& President
(D) Lok Sabha, Rajya Sabha with their Secretariats

Answer: A
The Indian Parliament is the supreme legislative body in India. Parliament is composed of: 1. The President of India 2. Lok Sabha (House of the People) 3. Rajya Sabha (Council of States). The president in his role as head of legislature has full powers to summon and prorogue either house of Parliament or to dissolve Lok Sabha. However, in keeping with the Westminster Model of governance, the president rarely exercises such powers without the advice of the prime minister.

Q59. The enrolment in higher education in India is contributed both by Formal System of Education and by System of Distance Education. Distance education contributes
(A) $50 \%$ of formal system
(B) $25 \%$ of formal system
(C) $10 \%$ of the formal system
(D) Distance education system's contribution is not taken into account while considering the figures of enrolment in higher education

## Answer: B

Education in India is provided by the public sector as well as the private sector, with control and funding coming from three levels: central, state, and local. Under various articles of the Indian Constitution, free and compulsory education is provided as a fundamental right to children between the ages of 6 and 14 . To begin with research should be undertaken to assess how far distance education has actually made education accessible. In India, about $10 \%$ of total enrolment in higher education is through distance education. This $10 \%$ is of the $6 \%$ of the age group 18-23 who join higher education. Further this $6 \%$ enrollment in higher education is actually $60 \%$ of those who are eligible to join higher education.

Q60. Assertion (A): The U.G.C. Academic Staff Colleges came into existence to improve the quality of teachers.
Reason (R): University and college teachers have to undergo both orientation and refresher courses.
(A) Both (A) and (R) are true and (R) is the correct explanation.
(B) Both (A) and (R) are correct but (R) is not the correct explanation of (A).
(C) (A) is correct and (R) is false.
(D) (A) is false and (R) is correct.

## Answer: A

Refresher course is a training course, usually a short one, that teaches you about new developments in a particular subject or skill, especially one that you need for your job. Orientation is the type of activity or subject that a person or organization seems most interested in and gives most attention.

## 11. Paper - I June - 2010

Q1. Which one of the following is the most important quality of a good teacher?
(A) Punctuality and sincerity
(B) Content mastery
(C) Content mastery and reactive
(D) Content mastery and sociable
Answer: A
Explanation: Question here focuses on the personal quality of the teacher.
Q2. The primary responsibility for the teacher's adjustment lies with
(A) The children
(B) The principal
(C) The teacher himself
(D) The community

Answer: C
Explanation: Teacher's adjustment is his/her own responsibility nobody else is responsible for it.

Q3. As per the NCTE norms, what should be the staff strength for a unit of $\mathbf{1 0 0}$ students at B.Ed. level?
(A) $1+7$
(B) $1+9$
(C) $1+10$
(D) $1+5$

Answer: A
Explanation: One Principal +7 faculty members.
Q4. Research has shown that the most frequent symptom of nervous instability among teachers is
(A) Digestive upsets
(B) Explosive behaviour
(C) Fatigue
(D) Worry
Answer: B

Q5. Which one of the following statements is correct?
(A) Syllabus is an annexure to the curriculum.
(B) Curriculum is the same in all educational institutions.
(C) Curriculum includes both formal, and informal education.
(D) Curriculum does not include methods of evaluation.

## Answer: A

Explanation: Curriculum refers to the sum of all the activities in an out of the school, syllabus is only a small part of it.

## Q6. A successful teacher is one who is

(A) Compassionate and disciplinarian
(C) Tolerant and dominating active

## Answer: A

## Read the following passage carefully and answer the questions 7 to 12:

The phrase "What is it like ?" stands for a fundamental thought process. How does one go about observing and reporting on things and events that occupy segments of earth space? Of all the infinite variety of phenomena on the face of the earth, how does one decide what phenomena to observe ? There is no such thing as a complete description of the earth or any part of it, for every microscopic point on the earth's surface differs from every other such point. Experience shows that the things observed are already familiar, because they are like phenomena that occur at home or because they resemble the abstract images and models developed in the human mind.

How are abstract images formed ? Humans alone among the animals possess language; their words symbolize not only specific things but also mental images of classes of things. People can remember what they have seen or experienced because they attach a word symbol to them.

During the long record of our efforts to gain more and more knowledge about the face of the earth as the human habitat, there has been a continuing interplay between things and events. The direct observation through the senses is described as a percept; the mental image is described as a concept. Percepts are what some people describe as reality, in contrast to mental images, which are theoretical, implying that they are not real.

The relation of Percept to Concept is not as simple as the definition implies. It is now quite clear that people of different cultures or even individuals in the same culture develop different mental images of reality and what they perceive is a reflection of these preconceptions. The direct observation of things and events on the face of the earth is so clearly a function of the mental images of the mind of the observer that the whole idea of reality must be reconsidered.

Concepts determine what the observer perceives, yet concepts are derived from the generalizations of previous percepts. What happens is that the educated observer is taught to accept a set of concepts and then sharpens or changes these concepts during a professional career. In any one field of scholarship, professional opinion at one time determines what concepts and procedures are acceptable, and these form a kind of model of scholarly behaviour.

## Q7. The problem raised in the passage reflects on

(A) thought process
(B) human behaviour
(C) cultural perceptions
(D) professional opinion

Answer: A

## Q8. According to the passage, human beings have mostly in mind

(A) Observation of things
(B) Preparation of mental images
(C) Expression through language
(D) To gain knowledge

## Answer: C

## Q9. Concept means

(A) A mental image
(B) A reality
(C) An idea expressed in language form
(D) All the above

Answer: A

## Q10. The relation of Percept to Concept is

(A) Positive
(B) Negative
(C) Reflective
(D) Absolute

Answer: C

Q11. In the passage, the earth is taken as
(A) The Globe
(B) The Human Habitat
(C) A Celestial Body
(D) A Planet

Answer: B

## Q12. Percept means

(A) Direct observation through the senses
(B) A conceived idea
(C) Ends of a spectrum
(D) An abstract image

Answer: A

## Q13. Action research means:

(A) A longitudinal research
(B) An applied research
(C) A research initiated to solve an immediate problem
(D) A research with socioeconomic objective

Answer: C
Explanation: Example - Late reporting of some students in the class.

## Q14. Research is

(A) Searching again and again
(B) Finding solution to any problem
(C) Working in a scientific way to search for truth of any problem
(D) None of the above

Answer: C

Q15. A common test in research demands much priority on
(A) Reliability
(B) Useability
(C) Objectivity
(D) All of the above

Answer: D

Q16. Which of the following is the first step in starting the research process?
(A) Searching sources of information to locate problem.
(B) Survey of related literature
(C) Identification of problem
(D) Searching for solutions to the problem

Answer: C
Q17. If a researcher conducts a research on finding out which administrative style contributes more to institutional effectiveness? This will be an example of
(A) Basic Research
(B) Action Research
(C) Applied Research
(D) None of the above

Answer: B

## Q18. Normal Probability Curve should be

(A) Positively skewed
(B) Negatively skewed
(C) Leptokurtic skewed
(D) Zero skewed

Answer: D
Q19. In communication, a major barrier to reception of messages is
(A) audience attitude
(B) audience knowledge
(C) audience education
(D) audience income

## Answer: A

The receiver may have anxieties The receiver may have expectations The receiver may be pre-occupied The receiver may have a physical disability The sender may have a physical disability Environmental disturbances

## Q20. Post-modernism is associated with

(A) newspapers
(B) magazines
(C) radio
(D) television

## Answer: B

Television and movies represent the pinnacle of mass-produced American culture and exhibit many of the Postmodern motifs shared by other art forms.

## Q21. Didactic communication is

(A) intra-personal
(B) inter-personal
(C) organizational
(D) relational

## Answer: B

A didactic method is a teaching method that follows a consistent scientific approach or educational style to engage the student?s mind.
Didactic communication is the one which intermediates the accomplishment of the educational phenomenon as a whole, it occurring only as a particular form required in the transmission of some specific learning content. It is particularly needed in achieving certain objectives, in the transmission of knowledge and information that is to be received by students and it also produces changes in students? cognitive, affective, behavioral and action?like reactions.

## Q22. In communication, the language is

(A) the non-verbal code
(B) the verbal code
(C) the symbolic code
(D) the iconic code

## Answer: B

Language enables individuals to give expression to their feelings, ideas, and concerns. As they mature, it is through language that they will communicate their personal needs and claim their rightful place in society

## Q23. Identify the correct sequence of the following:

(A) Source, channel, message, receiver
(B) Source, receiver, channel, message
(C) Source, message, receiver, channel
(D) Source, message, channel, receiver

## Answer:D

An information source, which produces a message. A transmitter, which encodes the message into signals A channel, to which signals are adapted for transmission A receiver, which 'decodes' (reconstructs) the message from the signal. A destination, where the message arrives.

Q24. Assertion (A) : Mass media promote a culture of violence in the society.
Reason (R): Because violence sells in the market as people themselves are violent in character.
(A) Both (A) and (R) are true and (R) is the correct explanation of (A).
(B) Both (A) and (R) are true, but (R) is not the correct explanation of (A).
(C) (A) is true, but (R) is false.
(D) Both (A) and (R) are false.

Answer: D
Q25. When an error of $\mathbf{1 \%}$ is made in the length of a square, the percentage error in the area of a square will be
(A) 0
(B) $1 / 2$
(C) 1
(D) 2
Answer: C

Q26. On January 12, 1980, it was a Saturday. The day of the week on January 12, 1979 was
(A) Thursday
(B) Friday
(C) Saturday
(D) Sunday

Answer: B

Q27. If water is called food, food is called tree, tree is called earth, earth is called world, which of the following grows a fruit?
(A) Water
(B) Tree
(C) World
(D) Earth

Answer: D

Q28. $E$ is the son of $A, D$ is the son of $B, E$ is married to $C, C$ is the daughter of $B$. How is $D$ related to $E$ ?
(A) Brother
(B) Uncle
(C) Father-in-law
(D) Brother-in-law

Answer: D

Q29. If INSURANCE is coded as ECNARUSNI, how HINDRANCE will be coded ?
(A) CADNIHWCE
(B) HANODEINR
(C) AENIRHDCN
(D) ECNARDNIH

Answer: B

## Q30. Find the next number in the following series:

2, 5, 10, 17, 26, 37, 50, ?
(A) 63
(B) 65
(C) 67
(D) 69

Answer: B

Q31. Which of the following is an example of circular argument?
(A) God created man in his image and man created God in his own image.
(B) God is the source of a scripture and the scripture is the source of our knowledge of God.
(C) Some of the Indians are great because India is great.
(D) Rama is great because he is Rama.

Answer: B
Q32. Lakshmana is a morally good person because
(A) he is religious
(B) he is educated
(C) he is rich
(D) he is rational

Answer: B

Q33. Two statements I and II given below are followed by two conclusions (a) and (b). Supposing the statements are true, which of the following conclusions can logically follow?
I. Some religious people are morally good.
II. Some religious people are rational.

Conclusions :
(a) Rationally religious people are good morally.
(b) Non-rational religious persons are not morally good.
(A) Only (a) follows.
(B) Only (b) follows.
(C) Both (a) and (b) follow.
(D) Neither (a) nor (b) follows.

Answer: D

Q34. Certainty is
(A) an objective fact
(B) emotionally satisfying
(C) logical
(D) ontological

## Answer: A

Questions from 35 to 36 are based on the following diagram in which there are three intersecting circles $I, S$ and $P$ where circle I stands for Indians, circle $S$ stands for scientists and circle $P$ for politicians. Different regions of the figure are lettered from a to $g$.

Q35. The region which represents non-Indian scientists who are politicians.
(A) f
(B) d
(C) a
(D) c

Answer: A
The figure clearly show the Region frepresents Non-Indian Scientists who are Politicians.

Q36. The region which represents politicians who are Indians as well as scientists.
(A) b
(B) c
(C) a
(D) d

Answer: C
The figure clearly show the Region a Politicians who are Indians as well as Scientists.

Q37. The population of a city is plotted as a function of time (years) in graphic form below:


Which of the following inference can be drawn from above plot?
(A) The population increases exponentially.
(B) The population increases in parabolic fashion.
(C) The population initially increases in a linear fashion and then stabilizes.
(D) The population initially increases exponentially and then stabilizes.

## Answer: D

The population initially increases exponentially and then stabilizes.

## In the following chart, the price of logs is shown in per cubic metre and

that of Plywood and Saw Timber in per tonnes. Study the chart and answer the following questions 38 to 40.


Q38. Which product shows the maximum percentage increase in price over the period?
(A) Saw timber
(B) Plywood
(C) Log
(D) None of the above

Answer: A
Saw Timber maximum increase in price over the period. i.e form 10 to 18 .
Plywood: 3 to 7.
Log: 18 to 21.
Q39. What is the maximum percentage increase in price per cubic metre of log?
(A) 6
(B) 12
(C) 18
(D) 20

Answer: D

Q40. In which year the prices of two products increased and that of the third increased?
(A) 2000
(B) 2002
(C) 2003
(D) 2006

Answer: C
In 2002 Plywood price increase by 1 Rupee while Saw and Timber and Log increase by 3 Rupees.

Q41. Which one of the following is the oldest Archival source of data in India?
(A) National Sample Surveys
(B) Agricultural

Statistics
(C) Census
(D) Vital Statistics

Answer: C

Q42. In a large random data set following normal distribution, the ratio (\%) of number of data points which are in the range of (mean $\pm$ standard deviation) to the total number of data points, is
(A) ~ 50\%
(B) $\sim 67 \%$
(C) ~ 97\%
(D) ~ 47\%

Answer: B

Q43. Which number system is usually followed in a typical 32-bit computer?
(A) 2
(B) 8
(C) 10
(D) 16

Answer: A
Q44. Which one of the following is an example of Operating System?
(A) Microsoft Word
(B) Microsoft Excel
(C) Microsoft Access
(D) Microsoft Windows

Answer: D

Q45. Which one of the following represent the binary equivalent of the decimal number 23 ?
(A) 01011
(B) 10111
(C) 10011
(D) None of the above

## Answer: B

Q46. Which one of the following is different from other members?
(A) Google
(B) Windows
(C) Linux
(D) Mac

Answer: A

Q47. Where does a computer add and compare its data?
(A) CPU
(B) Memory
(C) Hard disk
(D) Floppy disk
Answer: A

Q48. Computers on an internet are identified by
(A) e-mail address
(B) street address
(C) IP address
(D) None of the above

Answer: C

Q49. The Right to Information Act, 2005 makes the provision of (A) Dissemination of all types of information by all Public authorities to any person.
(B) Establishment of Central, State and District Level Information Commissions as an appellate body.
(C) Transparency and accountability in Public authorities.
(D) All of the above

Answer: D

Q50. Which type of natural hazards cause maximum damage to property and lives?
(A) Hydrological
(B) Hydro-meteorological
(C) Geological
(D) Geo-chemical

Answer: A

## 12. Paper - I December - 2010

Q1. Which of the following variables cannot be expressed in quantitative terms?
(A) Socio-economic Status
(C) Numerical Aptitude

Answer: D
(B) Marital Status
(D) Professional Attitude

Q2. A doctor studies the relative effectiveness of two drugs of dengue fever. His research would be classified as
(A) Descriptive Survey
(B) Experimental Research
(C) Case Study
(D) Ethnography

Answer: B
Q3. The term 'phenomenology' is associated with the process of
(A) Qualitative Research
(B) Analysis of Variance
(C) Correlational Study
(D) Probability Sampling

Answer: A

## Q4. The 'Sociogram' technique is used to study

(A) Vocational Interest
(B) Professional

Competence
(C) Human Relations
(D) Achievement Motivation

Answer: C
Read the following passage carefully and answer questions from 5 to 10: It should be remembered that the nationalist movement in India, like all nationalist movements, was essentially a bourgeois movement. It represented the natural historical stage of development, and to consider it or to criticise it as a working-class movement is wrong. Gandhi represented that movement and the Indian masses in relation to that movement to a supreme degree, and he became the voice of Indian people to that extent. The main contribution of

Gandhi to India and the Indian masses has been through the powerful movements which he launched through the National Congress. Through nationwide action he sought to mould the millions, and largely succeeded in doing so, and changing them from a demoralised, timid and hopeless mass, bullied and crushed by every dominant interest, and incapable of resistance, into a people with self-respect and self-reliance, resisting tyranny, and capable of united action and sacrifice for a larger cause.

Gandhi made people think of political and economic issues and every village and every bazaar hummed with argument and debate on the new ideas and hopes that filled the people. That was an amazing psychological change. The time was ripe for it, of course, and
circumstances and world conditions worked for this change. But a great leader is necessary to take advantage of circumstances and conditions. Gandhi was that leader, and he released
many of the bonds that imprisoned and disabled our minds, and none of us who experienced it can ever forget that great feeling of release and exhilaration that came over the Indian people.

Gandhi has played a revolutionary role in India of the greatest importance because he knew how to make the most of the objective conditions and could reach the heart of the masses, while groups with a more advanced ideology functioned largely in the air because they did not fit in with those conditions and could therefore not evoke any substantial response from the masses.

It is perfectly true that Gandhi, functioning in the nationalist plane, does not think in terms of the conflict of classes, and tries to compose their differences. But the action he has indulged and taught the people has inevitably raised mass consciousness tremendously and made social issues vital. Gandhi and the Congress must be judged by the policies they pursue and the action they indulge in. But behind this, personality counts and colours those policies and activities. In the case of very exceptional person like Gandhi the question of personality becomes especially important in order to understand and appraise him. To us he has represented the spirit and honour of India, the yearning of her sorrowing millions to be rid of their innumerable burdens, and an insult to him by the British Government or others has been an insult to India and her people.

Q5. Which one of the following is true of the given passage? (A) The passage is a critique of Gandhi's role in Indian movement for independence.
(B) The passage hails the role of Gandhi in India's freedom movement.
(C) The author is neutral on Gandhi's role in India's freedom movement.
(D) It is an account of Indian National Congress's support to the working-class movement.
Answer: B
Q6. The change that the Gandhian movement brought among the Indian masses was
(A) Physical
(B) Cultural
(C) Technological
(D) Psychological

Answer: D

Q7. To consider the nationalist movement or to criticise it as a working-class movement was wrong because it was a
(A) historical movement
(B) voice of the Indian people
(C) bourgeois movement
(D) movement represented by Gandhi
Answer: C

Q8. Gandhi played a revolutionary role in India because he could
(A) preach morality
(B) reach the heart of

Indians
(C) see the conflict of classes
(D) lead the Indian National

Congress
Answer: B

Q9. Groups with advanced ideology functioned in the air as they did not fit in with
(A) objective conditions of masses
(B) the Gandhian ideology
(C) the class consciousness of the people
(D) the differences among masses

## Answer: A

## Q10. The author concludes the passage by

(A) criticising the Indian masses
(B) the Gandhian movement
(C) pointing out the importance of the personality of Gandhi
(D) identifying the sorrows of millions of Indians

## Answer: C

## Q11. Media that exist in an interconnected series of communication - points are referred to as

(A) Networked media
(B) Connective media
(C) Nodal media
(D) Multimedia

## Answer: A

Network media refers to digital media mainly used in computer networks such as the Internet. Network media is essentially driven by technological development, emerging from the internet as a non-centralized medium in the late nineties, the term has more recently begun to be applied to both the arts and industry. The following features distinguish Network Media from classical media, such as broadcast media and the printed press: Network Media is typically democratic and decentralized. The audience can also be the contributors. Network Media often requires the involvement of computers as an input/output device. Network media requires a community to participate and consume.

## Q12. The information function of mass communication is described as

(A) diffusion
(B) publicity
(C) surveillance
(D) diversion

Answer: C
Surveillance is the monitoring of the behavior, activities, or other changing information, usually of people for the purpose of influencing, managing, directing, or protecting them. This can include observation from a distance by means of electronic equipment (such as CCTV cameras), or interception of electronically transmitted information (such as Internet traffic or phone calls); and it can include simple, relatively no- or low-technology methods such as
human intelligence agents and postal interception. The word surveillance comes from a French phrase for "watching over" ("sur" means "from above" and "veiller" means "to watch")

## Q13. An example of asynchronous medium is

(A) Radio
(C) Film
Answer: D

Q14. In communication, connotative words are
(A) explicit
(B) abstract
(C) simple
(D) cultural

## Answer: D

A connotation is a commonly understood cultural or emotional association that some word or phrase carries, in addition to the word's or phrase's explicit or literal meaning, which is its denotation. A connotation is frequently described as either positive or negative, with regards to its pleasing or displeasing emotional connection.

## Q15. A message beneath a message is labelled as

(A) embedded text
(B) internal text
(C) inter-text
(D) sub-text

## Answer: D

Subtext undertone is any content of a creative work which is not announced explicitly by the characters or author, but is implicit or becomes something understood by the observer of the work as the production unfolds. Subtext can also refer to the thoughts and motives of the characters which are only covered in an aside. Subtext is content underneath the dialogue. Under dialogue, there can be conflict, anger, competition, pride, showing off, or other implicit ideas and emotions. Subtext is the unspoken thoughts and motives of characters? what they really think and believe.

## Q16. In analog mass communication, stories are

(A) static
(B) dynamic
(C) interactive
(D) exploratory
Answer: A

Analog mass communication is the one way process of transferring message to the receiver, or audience. Here the audience is large so they utilize analog media which was originally used in audio recording that was analogous to the count it was recreating. Here the contents can be only linear and static not dynamic

Q17. Determine the relationship between the pair of words ALWAYS : NEVER and then select from the following pair of words which have a similar relationship:
(A) often : rarely
(B) frequently:
occasionally
(C) constantly: frequently
(D) intermittently : casually

Answer: A

Q18. Find the wrong number in the sequence :
52, 51, 48, 43, 34, 27, 16
(A) 27
(B) 34
(C) 43
(D) 48

Answer: B
Q19. In a certain code, PAN is written as 31 and PAR as 35, then PAT is written in the same code as
(A) 30
(B) 37
(C) 39
(D) 41

Answer: B
Q20. The letters in the first set have certain relationship. On the basis of this relationship, make the right choice for the second set :
AF : IK : : LQ : ?
(A) MO
(B) NP
(C) OR
(D) TV

Answer: D
Q21. If $\mathbf{5 4 7 2}=\mathbf{9}, \mathbf{6 3 4 2}=\mathbf{6}, 7584=\mathbf{6}$, what is $\mathbf{9 2 3 6}$ ?
(A) 2
(B) 3
(C) 4
(D) 5

## Answer: A

Q22. In an examination, $\mathbf{3 5 \%}$ of the total students failed in Hindi, 45\% failed in English and $\mathbf{2 0 \%}$ in both. The percentage of those who passed in both subjects is
(A) 10
(B) 20
(C) 30
(D) 40

Answer: D

Q23. Two statements I and II given below are followed by two conclusions (a) and (b). Supposing the statements are true, which of the following conclusions can logically follow?

## Statements :

I. Some flowers are red.
II. Some flowers are blue.

## Conclusions :

(a) Some flowers are neither red nor blue.
(b) Some flowers are both red and blue.
(A) Only (a) follows.
(B) Only (b) follows.
(C) Both (a) and (b) follow.
(D) Neither (a) nor (b) follows.

Answer: D
Q24. If the statement 'all students are intelligent' is true, which of the following statements are false?
(i) No students are intelligent.
(ii) Some students are intelligent.
(iii) Some students are not intelligent.
(A) (i) and (ii)
(B) (i) and (iii)
(C) (ii) and (iii)
(D) (i) only

Answer: B

Q25. A reasoning where we start with certain particular statements and conclude with a universal statement is called
(A) Deductive Reasoning
(C) Abnormal Reasoning

Answer: D
(B) Inductive Reasoning
(D) Transcendental Reasoning

Q26. What is the smallest number of ducks that could swim in this formation - two ducks in front of a duck, two ducks behind a duck and a duck between two ducks?
(A) 5
(B) 7
(C) 4
(D) 3

Answer: D

Q27. Mr. A, Miss B, Mr. C and Miss D are sitting around a table and discussing their trades.
(i) Mr. A sits opposite to the cook.
(ii) Miss B sits right to the barber
(iii) The washerman sits right to the barber
(iv) Miss D sits opposite to Mr. C

What are the trades of $A$ and $B$ ?
(A) Tailor and barber
(B) Barber and cook
(C) Tailor and cook
(D) Tailor and washerman
Answer: C

Q28. Which one of the following methods serve to measure correlation between two variables?
(A) Scatter Diagram
(B) Frequency

Distribution
(C) Two-way table
(D) Coefficient of Rank

Correlation
Answer: D

Q29. Which one of the following is not an Internet Service Provider (ISP) ?
(A) MTNL
(B) BSNL
(C) ERNET India
(D) Infotech India Ltd.

Answer: D

Q30. The hexadecimal number system consists of the symbols
(A) $0-7$
(B) $0-9, A-F$
(C) $0-7, A-F$
(D) None of these

## Answer: B

Q31. The binary equivalent of $(-15)_{10}$ is (2's complement system is used)
(A) 11110001
(B) 11110000
(C) 10001111
(D) None of these

Answer: A

Q32. 1 GB is equal to
(A) $2^{30}$ bits
(B) $2^{30}$ bytes
(C) $2^{20}$ bits
(D) $2^{20}$ bytes

Answer: B

Q33. The set of computer programs that manage the hardware/software of a computer is called
(A) Compiler system
(B) Operation system
(C) Operating system
(D) None of these
Answer: C

Q34. S/MIME in Internet technology stands for
(A) Secure Multipurpose Internet Mail Extension
(B) Secure Multimedia Internet Mail Extension
(C) Simple Multipurpose Internet Mail Extension
(D) Simple Multimedia Internet Mail Extension

Answer: A

Q35. Which of the following is not covered in 8 missions under the Climate Action Plan of Government of India?
(A) Solar power
(B) Waste to energy conversion
(C) Afforestation
(D) Nuclear energy

## Answer: D

Q36. The concentration of Total Dissolved Solids (TDS) in drinking water should not exceed
(A) $500 \mathrm{mg} / \mathrm{L}$
(B) $400 \mathrm{mg} / \mathrm{L}$
(C) $300 \mathrm{mg} / \mathrm{L}$
(D) $200 \mathrm{mg} / \mathrm{L}$

Answer: A

## Q37. 'Chipko' movement was first started by

(A) Arundhati Roy
(B) Medha Patkar
(C) Ila Bhatt
(D) Sunderlal Bahuguna

Answer: D
Q38. The constituents of photochemical smog responsible for eye irritation are
(A) $\mathrm{SO}_{2}$ and $\mathrm{O}_{3}$
(B) $\mathrm{SO}_{2}$ and $\mathrm{NO}_{2}$
(C) HCHO and PAN
(D) $\mathrm{SO}_{2}$ and SPM

## Answer: C

Q39. Assertion (A) : Some carbonaceous aerosols may be carcinogenic.
Reason (R): They may contain polycyclic aromatic hydrocarbons (PAHs).
(A) Both (A) and (R) are correct and (R) is the correct explanation of (A).
(B) Both (A) and (R) are correct but (R) is not the correct explanation of (A).
(C) (A) is correct, but (R) is false.
(D) (A) is false, but (R) is correct.

Answer: A

## Q40. Volcanic eruptions affect

(A) atmosphere and hydrosphere
(B) hydrosphere and biosphere
(C) lithosphere, biosphere and atmosphere
(D) lithosphere, hydrosphere and atmosphere

Answer: D
Q41. India's first Defense University is in the State of
(A) Haryana
(B) Andhra Pradesh
(C) Uttar Pradesh
(D) Punjab

Answer: A
Indian National Defence University (INDU) is a proposed university of
defence of the Government of India which will be established at Binola in Gurgaon, Haryana. The principle proposal was accepted by the union cabinet on 13 May 2010 and is expected to be functional by 2018-19.

## Q42. Most of the Universities in India

(A) conduct teaching and research only
(B) affiliate colleges and conduct examinations
(C) conduct teaching/research and examinations
(D) promote research only

## Answer: C

Most of the Universities in India conduct teaching/research and examinations.
Q43. Which one of the following is not a Constitutional Body?
(A) Election Commission
(B) Finance

Commission
(C) Union Public Service Commission (D) Planning Commission

Answer: D
The Planning Commission was an institution in the Government of India, which formulated India's Five-Year Plans, among other functions. It is located at Yojana Bhawan, Sansad Marg, New Delhi. Prime Minister Narendra Modi announced scrapping of Planning Commission. It has been replaced by an Institution named NITI Aayog, In his first Independence Day speech in 2014.

## Q44. Which one of the following statements is not correct?

(A) Indian Parliament is supreme.
(B) The Supreme Court of India has the power of judicial review.
(C) There is a division of powers between the Centre and the States.
(D) There is a Council of Ministers to aid and advise the President.

## Answer: B

Q45. Which one of the following statements reflects the republic character of Indian democracy?
(A) Written Constitution
(B) No State religion
(C) Devolution of power to local Government institutions
(D) Elected President and directly or indirectly elected Parliament

## Answer: D

Q46. Who among the following appointed by the Governor can be removed by only the President of India?
(A) Chief Minister of a State
(B) A member of the State Public Service Commission
(C) Advocate-General
(D) Vice-Chancellor of a State University

Answer: B

Q47. If two small circles represent the class of the 'men' and the class of the 'plants' and the big circle represents 'mortality', which one of the following figures represent the proposition 'All men are mortal.'?
(A)
(B)

Answer: C
Figure C represent the proposition ?All men are mortal.?
The following table presents the production of electronic items (TVs and LCDs) in a factory during the period from 2006 to 2010. Study the table carefully and answer the questions from 48 to 52 :

| Year | $\mathbf{2 0 0 6}$ | $\mathbf{2 0 0 7}$ | $\mathbf{2 0 0 8}$ | $\mathbf{2 0 0 9}$ | $\mathbf{2 0 1 0}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| TVs | 6000 | 9000 | 13000 | 11000 | 8000 |
| LCDs | 7000 | 9400 | 9000 | 10000 | 12000 |

Q48. In which year, the total production of electronic items is maximum?
(A) 2006
(B) 2007
(C) 2008
(D) 2010

Answer: C
Total production of electronic items in year 2006 $=6000+7000=13000$

Total production of electronic items in year $2007=9000+9400=18400$
Total production of electronic items in year 2008 $=13000+9000=22000$
Total production of electronic items in year 2009 $=11000+10000=21000$
Total production of electronic items in year $2010=8000+12000=20000$
Q49. What is the difference between averages of production of LCDs and TVs from 2006 to 2008 ?
(A) 3000
(B) 2867
(C) 3015
(D) 2600

Answer: D
Production of electronic items TVs from 2006 to 2008. $=6000+9000$ $+13000=28000$.
Production of electronic items LCDs from 2006 to 2008. $=7000+9400+$ $9000=25400$
Average Difference between LCDs and TVs is $=28000-25400=2600$
Q50. What is the year in which production of TVs is half the production of LCDs in the year 2010 ?
(A) 2007
(B) 2006
(C) 2009
(D) 2008

Answer: B
Production of LCDs in the year 2010 is 12000.
Production of TVs in the year 2006 is 6000.
Therefore, in 2006 production of TVs is half the production of LCDs in the year 2010.

Q51. What is the ratio of production of LCDs in the years 2008 and 2010 ?
(A) $4: 3$
(B) $3: 4$
(C) $1: 3$
(D) $2: 3$

Answer: B
Production of LCDs in the years $2008=9000$.
Production of LCDs in the years $2010=12000$
The Ratio is = 9000: 12000=3:4

2007 ?
(A) $6: 7$
(B) $7: 6$
(C) $2: 3$
(D) $3: 2$

Answer: C

Q53. Some students in a class exhibit great curiosity for learning. It may be because such children
(A) Are gifted
(B) Come from rich
families
(C) Show artificial behavior
(D) Create indiscipline in the class

Answer: A

Q54. The most important quality of a good teacher is
(A) Sound knowledge of subject matter
(B) Good communication skills
(C) Concern for students' welfare
(D) Effective leadership qualities

Answer: A

Q55. Which one of the following is appropriate in respect of teacher student relationship?
(A) Very informal and intimate
(B) Limited to classroom only
(C) Cordial and respectful
(D) Indifferent

Answer: C
Q56. The academic performance of students can be improved if parents are encouraged to
(A) supervise the work of their wards
(B) arrange for extra tuition
(C) remain unconcerned about it
(D) interact with teachers frequently

Answer: A

Q57. In a lively classroom situation, there is likely to be (A) occasional roars of laughter
(B) complete silence
(C) frequent teacher-student dialogue
(D) loud discussion among students

Answer: C

Q58. If a parent approaches the teacher to do some favour to his/her ward in the examination, the teacher should
(A) try to help him those terms
(C) refuse politely and firmly
(D) ask him rudely to go away

Answer: C
(B) ask him not to talk in

Q59. Which of the following phrases is not relevant to describe the meaning of research as a process?
(A) Systematic Activity
(B) Objective Observation
(C) Trial and Error
(D) Problem Solving
Answer: B

Q60. Which of the following is not an example of a continuous variable?
(A) Family size
(C) Height
(B) Intelligence

Answer: B

## 13. Paper - I June - 2011

Q1. A research paper is a brief report of research work based on
(A) Primary Data only
(B) Secondary Data only
(C) Both Primary and Secondary Data
(D) None of the above

Answer: C
Q2. Newton gave three basic laws of motion. This research is categorized as
(A) Descriptive Research
(B) Sample Survey
(C) Fundamental Research
(D) Applied Research
Answer: C

Q3. A group of experts in a specific area of knowledge assembled at a place and prepared a syllabus for a new course. The process may be termed as
(A) Seminar
(B) Workshop
(C) Conference
(D) Symposium

Answer: A

Q4. In the process of conducting research 'Formulation of Hypothesis" is followed by
(A) Statement of Objectives
(B) Analysis of Data
(C) Selection of Research Tools
(D) Collection of Data

Answer: B

## Read the following passage carefully and answer questions 5 to 10:

All historians are interpreters of text if they be private letters, Government records or parish birthlists or whatever. For most kinds of historians, these are only the necessary means to understanding something other than the texts
themselves, such as a political action or a historical trend, whereas for the intellectual historian, a full understanding of his chosen texts is itself the aim of his enquiries. Of course, the intellectual history is particularly prone to draw on the focus of other disciplines that are habitually interpreting texts for purposes of their own, probing the reasoning that ostensibly connects premises and conclusions. Furthermore, the boundaries with adjacent subdisciplines are shifting and indistinct : the history of art and the history of science both claim a certain autonomy, partly just because they require specialised technical skills, but both can also be seen as part of a wider intellectual history, as is evident when one considers, for example, the common stock of knowledge about cosmological beliefs or moral ideals of a period.

Like all historians, the intellectual historian is a consumer rather than a producer of 'methods'. His distinctiveness lies in which aspect of the past he is trying to illuminate, not in having exclusive possession of either a corpus of evidence or a body of techniques. That being said, it does seem that the label 'intellectual history' attracts a disproportionate share of misunderstanding.

It is alleged that intellectual history is the history of something that never really mattered. The long dominance of the historical profession by political historians bred a kind of philistinism, an unspoken belief that power and its exercise was 'what mattered'. The prejudice was reinforced by the assertion that political action was never really the outcome of principles or ideas that were 'more flapdoodle'. The legacy of this precept is still discernible in the tendency to require ideas to have 'licensed' the political class before they can be deemed worthy of intellectual attention, as if there were some reasons why the history of art or science, of philosophy or literature, were somehow of interest and significance than the history of Parties or Parliaments. Perhaps in recent years the mirror-image of this philistinism has been more common in the claim that ideas of any one is of systematic expression or sophistication do not matter, as if they were only held by a minority.

## Q5. An intellectual historian aims to fully understand

(A) the chosen texts of his own
(B) political actions
(C) historical trends
(D) his enquiries

Q6. Intellectual historians do not claim exclusive possession of
(A) conclusions
(B) any corpus of evidence
(C) distinctiveness
(D) habitual interpretation

Answer: A

Q7. The misconceptions about intellectual history stem from
(A) a body of techniques
(B) the common stock of knowledge
(C) the dominance of political historians
(D) cosmological beliefs

Answer: A

## Q8. What is philistinism?

(A) Reinforcement of prejudice
(B) Fabrication of reasons
(C) The hold of land-owning classes
(D) Belief that power and its exercise matter

Answer: D
Q9. Knowledge of cosmological beliefs or moral ideas of a period can be drawn as part of
(A) literary criticism
(B) history of science
(C) history of philosophy
(D) intellectual history

Answer: D
Q10. The claim that ideas of any one is of systematic expression do not matter, as if they were held by a minority, is
(A) to have a licensed political class
(B) a political action
(C) a philosophy of literature
(D) the mirror-
image of philistinism

Answer: D
Q11. Public communication tends to occur within a more
(A) complex structure
(B) political structure
(C) convenient structure
(D) formal structure

## Answer: D

Q12. Transforming thoughts, ideas and messages into verbal and non-verbal signs is referred to as
(A) channelization
(B) mediation
(C) encoding
(D) decoding

Answer: C

Q13. Effective communication needs a supportive
(A) economic environment
(C) social environment

Answer: C
(B) political environment
(D) multi-cultural environment

Q14. A major barrier in the transmission of cognitive data in the process of communication is an individual's
(A) personality
(B) expectation
(C) social status
(D) coding ability

Answer: D

Q15. When communicated, institutionalised stereotypes become
(A) myths
(B) reasons
(C) experiences
(D) convictions

Answer: D

Q16. In mass communication, selective perception is dependent on the receiver's
(A) competence
(B) pre-disposition
(C) receptivity
(D) ethnicity
Answer: C

Q17. Determine the relationship between the pair of words NUMERATOR : DENOMINATOR and then select the pair of words from the following which have a similar relationship:
(A) fraction : decimal
(B) divisor : quotient
(C) top : bottom
(D) dividend : divisor

Answer: C

Q18. Find the wrong number in the sequence
125, 127, 130, 135, 142, 153, 165
(A) 130
(B) 142
(C) 153
(D) 165

Answer: D

Q19. If HOBBY is coded as IOBY and LOBBY is coded as MOBY; then BOBBY is coded as
(A) BOBY
(B) COBY
(C) DOBY
(D) OOBY

Answer: B

Q20. The letters in the first set have certain relationship. On the basis of this relationship, make the right choice for the second set:
K/T : 11/20 :: J/R : ?
(A) $10 / 8$
(B) $10 / 18$
(C) $11 / 19$
(D) $10 / 19$

Answer: B
Q21. If $A=5, B=6, C=7, D=8$ and so on, what do the following numbers stand for?
17, 19, 20, 9, 8
(A) Plane
(B) Moped
(C) Motor
(D) Tonga
Answer: B

Q22. The price of $\boldsymbol{o i l}$ is increased by $\mathbf{2 5 \%}$. If the expenditure is not allowed to increase, the ratio between the reduction in consumption and the original consumption is
(A) $1: 3$
(B) $1: 4$
(C) $1: 5$
(D) $1: 6$

Answer: C
Q23. How many 8's are there in the following sequence which are preceded by 5 but not immediately followed by 3 ?

## 5837586385458476558358758285

(A) 4
(B) 5
(C) 7
(D) 3

Answer: A

Q24. If a rectangle were called a circle, a circle a point, a point a triangle and a triangle a square, the shape of a wheel is
(A) Rectangle
(B) Circle
(C) Point
(D) Triangle

Answer: C

Q25. Which one of the following methods is best suited for mapping the distribution of different crops as provided in the standard classification of crops in India?
(A) Pie diagram
technique
(C) Isopleth technique
(D) Dot method

Answer: B

Q26. Which one of the following does not come under the methods of data classification?
(A) Qualitative
(C) Spatial
(B) Normative

Answer: C

Q27. Which one of the following is not a source of data?
(A) Administrative records
(B) Population census
(C) GIS
(D) Sample survey
Answer: C

Q28. If the statement 'some men are cruel' is false, which of the following statements/statement are/is true?
(i) All men are cruel.
(ii) No men are cruel.
(iii) Some men are not cruel.
(A) (i) and (iii)
(B) (i) and (ii)
(C) (ii) and (iii)
(D) (iii) only

Answer: D
Q29. The octal number system consists of the following symbols:
(A) $0-7$
(B) $0-9$
(C) $0-9, \mathrm{~A}-\mathrm{F}$
(D) None of the above

Answer: A

Q30. The binary equivalent of $(-19)_{10}$ in signed magnitude system is
(A) 11101100
(B) 11101101
(C) 10010011
(D) None of these
Answer: C

Q31. DNS in internet technology stands for
(A) Dynamic Name System
(B) Domain Name System
(C) Distributed Name System
(D) None of these

Answer: B

## Q32. HTML stands for

(A) Hyper Text Markup Language
(B) Hyper Text Manipulation Language
(C) Hyper Text Managing Links
(D) Hyper Text Manipulating Links

Answer: A

Q33. Which of the following is type of LAN?
(A) Ethernet
(B) Token Ring
(C) FDDI
(D) All of the above

Answer: D

## Q34. Which of the following statements is true?

(A) Smart cards do not require an operating system.
(B) Smart cards and PCs use some operating system.
(C) COS is smart card operating system.
(D) The communication between reader and card is in full duplex mode.

Answer: C
Q35. The Ganga Action Plan was initiated during the year
(A) 1986
(B) 1988
(C) 1990
(D) 1992

Answer: A
Q36. Identify the correct sequence of energy sources in order of their share in the power sector in India:
(A) Thermal $>$ nuclear $>$ hydro $>$ wind
(B) Thermal $>$ hydro $>$ nuclear $>$ wind
(C) Hydro $>$ nuclear $>$ thermal $>$ wind
(D) Nuclear $>$ hydro $>$ wind $>$ thermal

Answer: B

Q37. Chromium as a contaminant in drinking water in excess of permissible levels, causes
(A) Skeletal damage
(B) Gastrointestinal problem
(C) Dermal and nervous problems
(D) Liver/Kidney problems

Answer: D
Q38. The main precursors of winter smog are
(A) $\mathrm{N}_{2} \mathrm{O}$ and hydrocarbons
(B) $\mathrm{NO}_{\mathrm{x}}$ and hydrocarbons
(C) $\mathrm{SO}_{2}$ and hydrocarbons
(D) $\mathrm{SO}_{2}$ and ozone

Answer: C

## Q39. Flash floods are caused when

(A) the atmosphere is convectively unstable and there is considerable vertical wind shear
(B) the atmosphere is stable
(C) the atmosphere is convectively unstable with no vertical windshear
(D) winds are catabatic

## Answer: A

Q40. In mega cities of India, the dominant source of air pollution is
(A) transport sector
(B) thermal power
(C) municipal waste
(D) commercial sector

Answer: A

Q41. The first Open University in India was set up in the State of
(A) Andhra Pradesh
(B) Delhi
(C) Himachal Pradesh
(D) Tamil Nadu

Answer: A
Q42. Most of the Universities in India are funded by
(A) the Central Government
(B) the State Governments
(C) the University Grants Commission
(D) Private bodies and Individuals

Answer: C

Q43. Which of the following organizations looks after the quality of Technical and Management education in India?
(A) NCTE
(B) MCI
(C) AICTE
(D) CSIR

Answer: C

Q44. Consider the following statements:
Identify the statement which implies natural justice.
(A) The principle of natural justice is followed by the Courts.
(B) Justice delayed is justice denied.
(C) Natural justice is an inalienable right of a citizen
(D) A reasonable opportunity of being heard must be given.

Answer: D

Q45. The President of India is
(A) the Head of State
(B) the Head of Government
(C) both Head of the State and the Head of the Government
(D) None of the above

Answer: A
Q46. Who among the following holds office during the pleasure of the President of India?
(A) Chief Election Commissioner
(B) Comptroller and Auditor General of India
(C) Chairman of the Union Public Service Commission
(D) Governor of a State

Answer: D
Questions 47 to 49 are based upon the following diagram in which there are three interlocking circles $A, P$ and $S$ where $A$ stands for Artists, circle Pfor Professors and circle $S$ for Sports persons. Different regions in the figure are lettered from a to f:

Q47. The region which represents artists who are neither sportsmen nor professors.
(A) d
(B) e
(C) b
(D) g

Answer: B
The region e represents artists who are neither sportsmen nor professors.
Q48. The region which represents professors, who are both artists and sportspersons.
(A) a
(B) c
(C) d
(D) g

Answer: A

The region a represents professors, who are both artists and sportspersons.
Q49. The region which represents professors, who are also sportspersons, but not artists.
(A) e
(B) f
(C) c
(D) g

Answer: C
The region c represents professors, who are also sportspersons, but not artists.

## Questions 50 to 52 are based on the following data :

Measurements of some variable X were made at an interval of 1 minute from 10 A.M. to 10:20 A.M. The data, thus, obtained is as follows:
X:60, 62, 65, 64, 63, 61, 66, 65, 70, 68, 63, 62, 64, 69, 65, 64, 66, 67, 66, 64
Q50. The value of $X$, which is exceeded $10 \%$ of the time in the duration of measurement, is
(A) 69
(B) 68
(C) 67
(D) 66

Answer:B

Q51. The value of $X$, which is exceeded $90 \%$ of the time in the duration of measurement, is
(A) 63
(B) 62
(C) 61
(D) 60

Answer: C

Q52. The value of $X$, which is exceeded $50 \%$ of the time in the duration of measurement, is
(A) 66
(B) 65
(C) 64
(D) 63

Answer: B

Q53. For maintaining an effective discipline in the class, the teacher should
(A) Allow students to do what they like.
(B) Deal with the students strictly.
(C) Give the students some problem to solve.
(D) Deal with them politely and firmly.

Answer: C

## Q54. An effective teaching aid is one which

(A) is colourful and good looking
(B) activates all faculties
(C) is visible to all students
(D) easy to prepare and use

Answer: B
Q55. Those teachers are popular among students who
(A) develop intimacy with them
(B) help them solve their problems
(C) award good grades
(D) take classes on extra tuition fee

Answer: B
Q56. The essence of an effective classroom environment is
(A) a variety of teaching aids $\quad$ (B) lively student-teacher interaction
(C) pin-drop silence
(D) strict discipline

Answer: B
Q57. On the first day of his class, if a teacher is asked by the students to introduce himself, he should
(A) ask them to meet after the class
(B) tell them about himself in brief
(C) ignore the demand and start teaching
(D) scold the student for this unwanted demand

Answer: B
Q58. Moral values can be effectively inculcated among the students when the teacher
(A) frequently talks about values
(B) himself practices them
(C) tells stories of great persons
(D) talks of Gods and Goddesses

Answer: B

Q59. The essential qualities of a researcher are
(A) spirit of free enquiry
(B) reliance on observation and evidence
(C) systematization or theorizing of knowledge
(D) all the above

Answer: D
Q60. Research is conducted to
I. Generate new knowledge
II. Not to develop a theory
III. Obtain research degree
IV. Reinterpret existing knowledge

Which of the above are correct?
(A) I, III \& II
(B) III, II \& IV
(C) II, I \& III
(D) I, III \& IV
Answer: D

## 14. Paper - I December- 2011

Q1. Photo bleeding means
(A) Photo cropping
(B) Photo placement
(C) Photo cutting
(D) Photo colour adjustment
Answer: D

Q2. While designing communication strategy feed-forward studies are conducted by
(A) Audience
(B) Communicator
(C) Satellite
(D) Media

Answer: B

Q3. In which language the newspapers have highest circulation?
(A) English
(B) Hindi
(C) Bengali
(D) Tamil

Answer: B

Q4. Aspect ratio of TV Screen is
(A) $4: 3$
(B) $3: 4$
(C) $2: 3$
(D) $2: 4$

Answer: A

Q5. Communication with oneself is known as
(A) Organisational Communication
(B) Grapewine Communication
(C) Interpersonal Communication
(D) Intrapersonal Communication

Answer: D

Q6. The term 'SITE' stands for
(A) Satellite Indian Television Experiment
(B) Satellite International Television Experiment
(C) Satellite Instructional Television Experiment
(D) Satellite Instructional Teachers Education

## Answer: C

Q7. What is the number that comes next in the sequence?
2, 5, 9, 19, 37, $\qquad$
(A) 76
(B) 74
(C) 75
(D) 50
Answer: C

Q8. Find the next letter for the series MPSV.....
(A) X
(B) Y
(C) Z
(D) A

Answer: B

Q9. If '367' means 'I am happy'; ‘748’ means 'you are sad' and '469' means 'happy and sad' in a given code, then which of the following represents 'and' in that code?
(A) 3
(B) 6
(C) 9
(D) 4

Answer: C

Q10. The basis of the following classification is 'animal', 'man', 'house', 'book', and 'student':
(A) Definite descriptions
(B) Proper names
(C) Descriptive phrases
(D) Common names
Answer: D

Q11. Assertion (A): The coin when flipped next time will come up tails.
Reason (R): Because the coin was flipped five times in a row, and each time it came up heads.
Choose the correct answer from below:
(A) Both (A) and (R) are true, and (R) is the correct explanation of (A).
(B) Both (A) and (R) are false, and (R) is the correct explanation of (A).
(C) (A) is doubtful, (R) is true, and (R) is not the correct explanation of (A).
(D) (A) is doubtful, (R) is false, and (R) is the correct explanation of (A). Answer: C

## Q12. The relation 'is a sister of ' is

(A) non-symmetrical
(B) symmetrical
(C) asymmetrical
(D) transitive

## Answer: D

Q13. If the proposition "Vegetarians are not meat eaters" is false, then which of the following inferences is correct? Choose from the codes given below :

1. "Some vegetarians are meat eaters" is true.
2. "All vegetarians are meat eaters" is doubtful.
3. "Some vegetarians are not meat eaters" is true.
4. "Some vegetarians are not meat eaters" is doubtful.

Codes:
(A) 1, 2 and 3
(B) 2, 3 and 4
(C) 1, 3 and 4
(D) 1, 2 and 4
Answer: A

Q14. Determine the nature of the following definition:
'Poor' means having an annual income of Rs.10,000.
(A) persuasive
(B) precising
(C) lexical
(D) stipulative

## Answer: B

## Q15. Which one of the following is not an argument?

(A) If today is Tuesday, tomorrow will be Wednesday.
(B) Since today is Tuesday, tomorrow will be Wednesday.
(C) Ram insulted me so I punched him in the nose.
(D) Ram is not at home, so he must have gone to town.

Answer: A

## Q16. Venn diagram is a kind of diagram to

(A) represent and assess the truth of elementary inferences with the help of Boolean Algebra of classes.
(B) represent and assess the validity of elementary inferences with the help of Boolean Algebra of classes.
(C) represent but not assess the validity of elementary inferences with the help of Boolean Algebra of classes.
(D) assess but not represent the validity of elementary inferences with the help of Boolean Algebra of classes.
Answer: B

Q17. Inductive logic studies the way in which a premise may
(A) support and entail a conclusion
(B) not support but entail a conclusion
(C) neither support nor entail a conclusion
(D) support a conclusion without entailing it

Answer: D
Q18. Which of the following statements are true? Choose from the codes given below.

1. Some arguments, while not completely valid, are almost valid.
2. A sound argument may be invalid.
3. A cogent argument may have a probably false conclusion.
4. A statement may be true or false.

## Codes:

(A) 1 and 2
(B) 1,3 and 4
(C) 4 alone
(D) 3 and 4

Answer: D
Q19. If the side of the square increases by $\mathbf{4 0 \%} \%$, then the are of the square increases by
(A) $60 \%$
(B) $40 \%$
(C) $196 \%$
(D) $96 \%$

## Answer: D

Q20. There are 10 lamps in a hall. Each one of them can be switched on independently. The number of ways in which hall can be illuminated is
(A) $10^{2}$
(B) 1023
(C) $2^{10}$
(D) 10 !

Answer: B
Q21. How many numbers between 100 and 300 begin or end with 2?
(A) 100
(B) 110
(C) 120
(D) 180

Answer: B

Q22. In a college having 300 students, every student reads 5 newspapers and every newspaper is read by 60 students. The number of newspapers required is
(A) at least 30
(B) at most 20
(C) exactly 25
(D) exactly 5

Answer: C

The total $\mathrm{CO}_{2}$ emissions from various sectors are 5 mmt . In the Pie Chart given below, the percentage contribution to $\mathrm{CO}_{2}$ emissions from various sectors is indicated. Answer questions $23 \& 24$.


Q23. What is the absolute $\mathrm{CO}_{2}$ emission from domestic sector?
(A) 1.5 mmt
(B) 2.5 mmt
(C) 1.75 mmt
(D) 0.75 mmt

Answer: D
Domestic sector emission $=5 * 15 / 100=0.75 \mathrm{mmt}$.
Q24. What is the absolute $\mathrm{CO}_{2}$ emission for combined thermal power and transport sectors?
(A) 3.25 mmt
(B) 1.5 mmt
(C) 2.5 mmt
(D) 4 mmt

Answer: A
Combined \% of emmision of $\mathrm{CO}_{2}$ from thermal and transport sector $=30+35$
= 65 \%
Required emmission $=5 * 65 / 100=3.25 \mathrm{mmt}$
Q25. Which of the following operating system is used on mobile phones?
(A) Windows Vista
(B) Android
(C) Windows XP
(D) All of the above

Answer: B
Q26. If $(y)_{x}$ represents a number $y$ in base $x$, then which of the following numbers is smallest of all?
(A) $(1111)_{2}$
(B) $(1111)_{8}$
(C) $(1111)_{10}$
(D) $(1111)_{16}$

Answer: A
Q27. High level programming language can be converted to machine language using which of the following?
(A) Oracle
(B) Compiler
(C) Mat lab
(D) Assembler

Answer: B

Q28. HTML is used to create
(A) machine language program
(B) high level program
(C) web page
(D) web server

Answer: C
Q29. The term DNS stands for
(A) Domain Name System
(C) Downloadable New Software

Answer: A
(B) Defense Nuclear System
(D) Dependent Name Server

Q30. IPv4 and IPv6 are addresses used to identify computers on the internet.
Find the correct statement out of the following:
(A) Number of bits required for IPv4 address is more than number of bits required for IPv6 address.
(B) Number of bits required for IPv4 address is same as number of bits required for IPv6 address.
(C) Number of bits required for IPv4 address is less than number of bits required for IPv6 address.
(D) Number of bits required for IPv4 address is 64.

Answer: C

Q31. Which of the following pollutants affects the respiratory tract in humans?
(A) Carbon monoxide
(B) Nitric oxide
(C) Sulphur di-oxide
(D) Aerosols
Answer: C

Q32. Which of the following pollutants is not emitted from the transport sector?
(A) Oxides of nitrogen

Chlorofluorocarbons
(C) Carbon monoxide
(D) Poly aromatic hydrocarbons

Answer: B

Q33. Which of the following sources of energy has the maximum potential in India?
(A) Solar energy
(B) Wind energy
(C) Ocean thermal energy
(D) Tidal energy

Answer: B

Q34. Which of the following is not a source of pollution in soil?
(A) Transport sector
(B) Agriculture sector
(C) Thermal power plants
(D) Hydropower plants
Answer: D

Q35. Which of the following is not a natural hazard?
(A) Earthquake
(B) Tsunami
(C) Flash floods
(D) Nuclear accident

Answer: D

## Q36. Ecological footprint represents

(A) area of productive land and water to meet the resources requirement
(B) energy consumption
(C) $\mathrm{CO}_{2}$ emissions per person
(D) forest cover

Answer: A

Q37. The aim of value education to inculcate in students is
(A) the moral values
(B) the social values
(C) the political values
(D) the economic
values

Answer: A

Q38. Indicate the number of Regional Offices of University Grants Commission of India.
(A) 10
(B) 07
(C) 08
(D) 09

Answer: B

Q39. One-rupee currency note in India bears the signature of
(A) The President of India
(B) Finance Minister of India
(C) Governor, Reserve Bank of India
(D) Finance Secretary of Government of India

Answer: D

Q40. Match the List - I with the List - II and select the correct answer from the codes given below :

List - I
(Commissions and Committees)

List - II
(a) First Administrative Reforms Commission
(i) 2005
(b) Paul H. Appleby Committee
(ii) 1962
(c) K. Santhanam Committee
(iii) 1966
(d) Second Administrative Reforms Commission
(iv) 1953

Codes:
(a) (b) (c) (d)
(A) (i) (iii) (ii) (iv)
(B) (iii) (iv) (ii) (i)
(C) (iv) (ii) (iii) (i)
(D) (ii) (i) (iv) (iii)

Answer: B
Q41. Constitutionally the registration and recognition of political parties is the function performed by
(A) The State Election Commission of respective States
(B) The Law Ministry of Government of India
(C) The Election Commission of India
(D) Election Department of the State Governments

Answer: C

## Q42. The members of Gram Sabha are

(A) Sarpanch, Upsarpanch and all elected Panchas
(B) Sarpanch, Upsarpanch and Village level worker
(C) Sarpanch, Gram Sevak and elected Panchas
(D) Registered voters of Village Panchayat

Answer: D

Q43. By which of the following methods the true evaluation of the students is possible?
(A) Evaluation at the end of the course.
(B) Evaluation twice in a year.
(C) Continuous evaluation.
(D) Formative evaluation.

Answer: C
Q44. Suppose a student wants to share his problems with his
teacher and he visits the teacher's house for the purpose, the teacher should
(A) contact the student's parents and solve his problem.
(B) suggest him that he should never visit his house.
(C) suggest him to meet the principal and solve the problem.
(D) extend reasonable help and boost his morale.

Answer: D

Q45. When some students are deliberately attempting to disturb the discipline of the class by making mischief, what will be your role as a teacher?
(A) Expelling those students.
(B) Isolate those students.
(C) Reform the group with your authority.
(D) Giving them an opportunity for introspection and improve their behaviour.

Answer: D

Q46. Which of the following belongs to a projected aid?
(A) Blackboard
(B) Diorama
(C) Epidiascope
(D) Globe

Answer: C

Q47. A teacher is said to be fluent in asking questions, if he can ask
(A) meaningful questions
(B) as many questions as possible
(C) maximum number of questions in a fixed time
(D) many meaningful questions in a fixed time

Answer: A

Q48. Which of the following qualities is most essential for a teacher?
(A) He should be a learned person.
(B) He should be a well dressed person.
(C) He should have patience.
(D) He should be an expert in his subject.

## Answer: C

Q49. A hypothesis is a
(A) law
(B) canon
(C) postulate
(D) supposition

Answer: D

Q50. Suppose you want to investigate the working efficiency of nationalised bank in India, which one of the following would you follow?
(A) Area Sampling
(B) Multi-stage Sampling
(C) Sequential Sampling
(D) Quota Sampling

Answer: B

Q51. Controlled group condition is applied in
(A) Survey Research
(B) Historical Research
(C) Experimental Research
(D) Descriptive Research
Answer: C

Q52. Workshops are meant for
(A) giving lectures
(B) multiple target
groups
(C) showcase new theories
(D) hands on training/experience

Answer: D

Q53. Which one of the following is a research tool?
(A) Graph
(B) Illustration
(C) Questionnaire
(D) Diagram

Answer: C

## Q54. Research is not considered ethical if it

(A) tries to prove a particular point.
(B) does not ensure privacy and anonymity of the respondent.
(C) does not investigate the data scientifically.
(D) is not of a very high standard.

Answer: B

Read the following passage carefully and answer the questions (On. Nos. 55 to 60) :
The catalytic fact of the twentieth century is uncontrollable development, consumerist society, political materialism, and spiritual devaluation. This inordinate development has led to the transcendental 'second reality' of sacred perception that biologically transcendence is a part of human life. As the century closes, it dawns with imperative vigour that the 'first reality' of enlightened rationalism and the 'second reality' of the Beyond have to be harmonised in a worthy state of man. The de facto values describe what we are, they portray the 'is' of our ethic, they are est values (Latin est means is). The ideal values tell us what we ought to be, they are esto values (Latin esto 'ought to be'). Both have to be in the ebb and flow of consciousness. The ever new science and technology and the ever-perennial faith are two modes of one certainty, that is the wholeness of man, his courage to be, his share in Being. The materialistic foundations of science have crumbled down. Science itself has proved that matter is energy, processes are as valid as facts, and affirmed the non - materiality of the universe. The encounter of the 'two cultures', the scientific and the humane, will restore the normal vision, and will be the bedrock of a 'science of understanding' in the new century. It will give new meaning to the ancient perception that quantity (measure) and quality (value) coexist at the root of nature. Human endeavours cannot afford to be humanistically irresponsible.

## Q55. The problem raised in the passage reflects overall on

(A) Consumerism
(C) Spiritual devaluation

Answer: D
(B) Materialism
(D) Inordinate development

## Q56. The 'de facto' values in the passage means

(A) What is
(B) What ought to be
(C) What can be
(D) Where it is

Answer: A

## Q57. According to the passage, the 'first reality' constitutes

(A) Economic prosperity
(C) Sacred perception of life
(B) Political development
Answer: D
(D) Enlightened rationalism

Q58. Encounter of the 'two cultures', the scientific and the human implies
(A) Restoration of normal vision
(B) Universe is both material and non-material
(C) Man is superior to nature
(D) Co-existence of quantity and quality in nature

Answer: A

Q59. The contents of the passage are
(A) Descriptive
(B) Prescriptive
(C) Axiomatic
(D) Optional
Answer: D

Q60. The passage indicates that science has proved that
(A) universe is material
(B) matter is energy
(C) nature has abundance
(D) humans are irresponsible

Answer: B

## 15. Paper - I June - 2012

Q1. Video-Conferencing can be classified as one of the following types of communication
(A) Visual one way
(B) Audio-Visual one way
(C) Audio-Visual two way
(D) Visual two way

Answer: C
Q2. MC National University of Journalism and Communication is located at
(A) Lucknow
(B) Bhopal
(C) Chennai
(D) Mumbai

Answer: B

Q3. All India Radio (A.I.R.) for broadcasting was named in the year
(A) 1926
(B) 1936
(C) 1946
(D) 1956

Answer: B

Q4. In India for broadcasting TV programmes which system is followed?
(A) NTCS
(B) PAL
(C) NTSE
(D) SECAM

Answer: B

## Q5. The term 'DAVP' stands for

(A) Directorate of Advertising \& Vocal Publicity
(B) Division of Audio-Visual Publicity
(C) Department of Audio-Visual Publicity
(D) Directorate of Advertising \& Visual Publicity

Answer: D

Q6. The term "TRP" is associated with TV shows stands for
(A) Total Rating Points
(B) Time Rating Points
(C) Thematic Rating Points
(D) Television Rating Points

Answer: D

Q7. Which is the number that comes next in the following sequence?
2, 6, 12, 20, 30, 42, 56,
(A) 60
(B) 64
(C) 72
(D) 70

Answer: C

Q8. Find the next letter for the series YVSP .
(A) N
(B) M
(C) O
(D) L

Answer: B

Q9. Given that in a code language, ' 645 ' means 'day is warm'; '42' means 'warm spring' and ' 634 ' means 'spring is sunny'; which digit represents 'sunny'?
(A) 3
(B) 2
(C) 4
(D) 5

Answer: A

Q10. The basis of the following classification is :
'first President of India', 'author of Godan', 'books in my library', 'blue things' and 'students who work hard'
(A) Common names
(B) Proper names
(C) Descriptive phrases
(D) Indefinite description
Answer: C

Q11. In the expression 'Nothing is larger than itself' the relation 'is larger than' is
(A) antisymmetric
(B) asymmetrical
(C) intransitive
(D) irreflexive

## Answer: D

Q12. Assertion (A) : There are more laws on the books today than ever before, and more crimes being committed than ever before.
Reason (R): Because to reduce crime we must eliminate the laws.
Choose the correct answer from below :
(A) (A) is true, (R) is doubtful and (R) is not the correct explanation of (A).
(B) (A) is false, (R) is true and (R) is the correct explanation of (A).
(C) (A) is doubtful, (R) is doubtful and (R) is not the correct explanation of (A).
(D) (A) is doubtful, (R) is true and (R) is not the correct explanation of (A). Answer: A

Q13. If the proposition "All men are not mortal" is true then which of the following inferences is correct? Choose from the code given below :

1. "All men are mortal" is true.
2. "Some men are mortal" is false.
3. "No men are mortal" is doubtful.
4. "All men are mortal" is false.

## Code :

(A) 1, 2 and 3
(B) 2, 3 and 4
(C) 1, 3 and 4
(D) 1 and 3

Answer: B

Q14. Determine the nature of the following definition :
"Abortion" means the ruthless murdering of innocent beings.
(A) Lexical
(B) Persuasive
(C) Stipulative
(D) Theoretical

Answer: B

## Q15. Which one of the following is not an argument?

(A) Devadutt does not eat in the day so he must be eating at night.
(B) If Devadutt is growing fat and if he does not eat during the day, he will be eating at night.
(C) Devadutt eats in the night so he does not eat during the day.
(D) Since Devadutt does not eat in the day, he must be eating in the night. Answer: B

Q16. Venn diagram is a kind of diagram to
(A) represent and assess the validity of elementary inferences of syllogistic form.
(B) represent but not assess the validity of elementary inferences of syllogistic form.
(C) represent and assess the truth of elementary inferences of syllogistic form.
(D) assess but not represent the truth of elementary inferences of syllogistic form.
Answer: A

## Q17. Reasoning by analogy leads to

(A) certainty
(B) definite
conclusion
(C) predictive conjecture
(D) surety

Answer: C

Q18. Which of the following statements are false? Choose from the code given below :

1. Inductive arguments always proceed from the particular to the general.
2. A cogent argument must be inductively strong.
3. A valid argument may have a false premise and a false conclusion.
4. An argument may legitimately be spoken of as 'true' or 'false'.

Code :
(A) 2, 3 and 4
(B) 1 and 3
(C) 2 and 4
(D) 1 and 2
Answer: C

Q19. Six persons $A, B, C, D, E$ and $F$ are standing in a circle. $B$ is between $F$ and $C, A$ is between $E$ and $D, F$ is to the left of $D$. Who is between $A$ and $F$ ?
(A) B
(B) C
(C) D
(D) E
Answer: C

Q20. The price of petrol increases by $\mathbf{2 5 \%}$. By what percentage must a customer reduce the consumption so that the earlier bill on the petrol does not alter?
(A) $20 \%$
(B) $25 \%$
(C) $30 \%$
(D) $33.33 \%$

Answer: A
Q21. If Ram knows that $y$ is an integer greater than 2 and less than 7 and Hari knows that $y$ is an integer greater than 5 and less than 10, then they may correctly conclude that
(A) y can be exactly determined
(B) y may be either of two values
(C) y may be any of three values
(D) there is no value of y satisfying these conditions

Answer: A
Q22. Four pipes can fill a reservoir in 15, 20, 30 and 60 hours respectively. The first one was opened at 6 AM , second at 7 AM , third at 8 AM and the fourth at 9 AM . When will the reservoir be filled?
(A) 11 AM
(B) 12 Noon
(C) 1 PM
(D) $1: 30 \mathrm{PM}$

Answer: C

The total electricity generation in a country is $\mathbf{9 7} \mathbf{G W}$. The contribution of various energy sources is indicated in percentage terms in the Pie Chart given below:


Q23. What is the contribution of wind and solar power in absolute terms in the electricity generation?
(A) 6.79 GW
(B) 19.4 GW
(C) 9.7 GW
(D) 29.1 GW

Answer: A
Contrribution of wind and solar power in absolute terms $=97 * 7 / 100=6.79$
GW

Q24. What is the contribution of renewable energy sources in absolute terms in the electricity generation?
(A) 29.1 GW
(B) 26.19 GW
(C) 67.9 GW
(D) 97 GW

Answer: B
Contribution of renewable energy sources in absolute terms $=97 * 27 / 100=$ 26.19 GW

Q25. TCP/IP is necessary if one is to connect to the
(A) Phone lines
(B) LAN
(C) Internet
(D) a Server

Answer: C
Q26. Each character on the keyboard of computer has an ASCII value which stands for
(A) American Stock Code for Information Interchange
(B) American Standard Code for Information Interchange
(C) African Standard Code for Information Interchange
(D) Adaptable Standard Code for Information Change

## Answer: B

Q27. Which of the following is not a programming language?
(A) Pascal
(B) Microsoft Office
(C) Java
(D) $\mathrm{C}++$

Answer: B
Q28. Minimum number of bits required to store any $\mathbf{3}$ digit decimal number is equal to
(A) 3
(B) 5
(C) 8
(D) 10

## Answer: D

Q29. Internet explorer is a type of
(A) Operating System
(B) Compiler
(C) Browser
(D) IP address

Answer: C

Q30. POP3 and IMAP are e-mail accounts in which
(A) One automatically gets one's mail everyday
(B) One has to be connected to the server to read or write one's mail
(C) One only has to be connected to the server to send and receive email
(D) One does not need any telephone lines

Answer: C

Q31. Irritation in eyes is caused by the pollutant
(A) Sulphur di-oxide
(B) Ozone
(C) PAN
(D) Nitrous oxide
Answer: C

Q32. Which is the source of chlorofluorocarbons?
(A) Thermal power plants
(B) Automobiles
(C) Refrigeration and Air-conditioning
(D) Fertilizers

Answer: C

Q33. Which of the following is not a renewable natural resource?
(A) Clean air
(B) Fertile soil
(C) Fresh water
(D) Salt

Answer: D

Q34. Which of the following parameters is not used as a pollution indicator in water?
(A) Total dissolved solids
(B) Coliform count
(C) Dissolved oxygen
(D) Density
Answer: D

Q35. $\quad S$ and $P$ waves are associated with
(A) floods
(B) wind energy
(C) earthquakes
(D) tidal energy

Answer: C
Q36. Match Lists I and II and select the correct answer from the codes given below :
List - I
(i) Ozone hole
(ii) Greenhouse effect

List - II
(iii) Natural hazards
(b) UV radiations
(iv) Sustainable development
(c) Methane

Codes:
(i) (ii) (iii) (iv)
(A) (b) (c) (a) (d)
(B) (c) (b) (a) (d)
(C) (d) (c) (a) (b)
(D) (d) (b) (c) (a)

Answer: A
Q37. Indian Institute of Advanced Study is located at
(A) Dharmshala
(B) Shimla
(C) Solan
(D) Chandigarh
Answer: B

Q38. Indicate the number of Regional Offices of National Council of Teacher Education.
(A) 04
(B) 05
(C) 06
(D) 08

Answer: A
Q39. Which of the following rights was considered the "Heart and Soul" of the Indian Constitution by Dr. B.R. Ambedkar?
(A) Freedom of Speech
(B) Right to Equality
(C) Right to Freedom of Religion
(D) Right to Constitutional Remedies

Answer: D
Q40. Who among the following created the office of the District Collector in India?
(A) Lord Cornwallis
(B) Warren Hastings
(C) The Royal Commission on Decentralisation
(D) Sir Charles Metcalfe

## Answer: B

## Q41. The Fundamental Duties of a citizen include

1. Respect for the Constitution, the National Flag and the National Anthem
2. To develop the scientific temper.
3. Respect for the Government.
4. To protect Wildlife.

Choose the correct answer from the codes given below:
Codes :
(A) 1, 2 and 3
(B) 1, 2 and 4
(C) 2, 3 and 4
(D) 1, 3, 4 and 2

Answer: B
Q42. The President of India takes oath
(A) to uphold the sovereignty and integrity of India.
(B) to bear true faith and allegiance to the Constitution of India.
(C) to uphold the Constitution and Laws of the country.
(D) to preserve, protect and defend the Constitution and the law of the country. Answer: D

Q43. If you get an opportunity to teach a visually challenged student along with normal students, what type of treatment would you like to give him in the class?
(A) Not giving extra attention because majority may suffer.
(B) Take care of him sympathetically in the class- room.
(C) You will think that blindness is his destiny and hence you cannot do
anything.
(D) Arrange a seat in the front row and try to teach at a pace convenient to him. Answer: D

Q44. Which of the following is not a characteristic of a good achievement test?
(A) Reliability
(B) Objectivity
(C) Ambiguity
(D) Validity
Answer: C

Q45. Which of the following does not belong to a projected aid?
(A) Overhead projector
(B) Blackboard
(C) Epidiascope
(D) Slide projector
Answer: B

Q46. For a teacher, which of the following methods would be correct for writing on the blackboard?
(A) Writing fast and as clearly as possible.
(B) Writing the matter first and then asking students to read it.
(C) Asking a question to students and then writing the answer as stated by them.
(D) Writing the important points as clearly as possible.

## Answer: D

Q47. A teacher can be successful if he/she
(A) helps students in becoming better citizens
(B) imparts subject knowledge to students
(C) prepares students to pass the examination
(D) presents the subject matter in a well organized manner

Answer: D

## Q48. Dynamic approach to teaching means

(A) Teaching should be forceful and effective
(B) Teachers should be energetic and dynamic
(C) The topics of teaching should not be static, but dynamic
(D) The students should be required to learn through activities

## Answer: D

Q49. The research that aims at immediate application is
(A) Action Research
(B) Empirical Research
(C) Conceptual Research
(D) Fundamental Research

Answer: A

Q50. When two or more successive footnotes refer to the same work which one of the following expressions is used?
(A) ibid
(B) et.al
(C) op.cit:
(D) loc.cit.

Answer: A
Q51. Nine year olds are taller than seven year olds. This is an example of a reference drawn from
(A) Vertical study
(B) Cross-sectional
study
(C) Time series study
(D) Experimental study

Answer: B

Q52. Conferences are meant for
(A) Multiple target groups
(B) Group discussions
(C) Show-casing new Research
(D) All the above

Answer: D

## Q53. Ex Post Facto research means

(A) The research is carried out after the incident
(B) The research is carried out prior to the incident
(C) The research is carried out along with the happening of an incident.
(D) The research is carried out keeping in mind the possibilities of an incident.

Answer: A
Q54. Research ethics do not include
(A) Honesty
(B) Subjectivity
(C) Integrity
(D) Objectivity

Answer: B

Read the following passage carefully and answer the questions 55 to 60 :
James Madison said, "A people who mean to be their own governors must arm themselves with power that knowledge gives." In India, the Official Secrets Act, 1923 was a convenient smokescreen to deny members of the public access to information. Public functioning has traditionally been shrouded in secrecy. But in a democracy in which people govern themselves, it is necessary to have more openness. In the maturing of our democracy, right to information is a major step forward; it enables citizens to participate fully in the decisionmaking process that affects their lives so profoundly. It is in this context that the address of the Prime Minister in the Lok Sabha is significant. He said, "I would only like to see that everyone, particularly our civil servants, should see the Bill in a positive spirit; not as a draconian law for paralyzing Government, but as an instrument for improving Government-Citizen interface resulting in a friendly, caring and effective Government functioning for the good of our People." He further said, "This is an innovative Bill, where there will be scope to review its functioning as we gain experience. Therefore, this is a piece of legislation, whose working will be kept under constant reviews." The Commission, in its Report, has dealt with the application of the Right to Information in Executive, Legislature and Judiciary. The judiciary could be a pioneer in implementing the Act in letter and spirit because much of the work that the Judiciary does is open to public scrutiny, Government of India has sanctioned an e-governance project in the Judiciary for about Rs 700 crores which would bring about systematic classification, standardization and categorization of records. This would help the judiciary to fulfil its mandate under the Act. Similar capacity building would be required in all other public authorities. The transformation from nontransparency to transparency and public accountability is the responsibility of all three organs of State.

## Q55. A person gets power

(A) by acquiring knowledge
(B) from the Official Secrets Act, 1923
(C) through openings
(D) by denying public information

Answer: A

## Q56. Right to Information is a major step forward to

(A) enable citizens to participate fully in the decision making process
(B) to make the people aware of the Act
(C) to gain knowledge of administration
(D) to make the people Government friendly

Answer: A
Q57. The Prime Minister considered the Bill
(A) to provide power to the civil servants
(B) as an instrument for improving Government-citizen interface resulting in a friendly, caring and effective Government
(C) a draconian law against the officials
(D) to check the harassment of the people

## Answer: B

## Q58. The Commission made the Bill effective by

(A) extending power to the executive authorities
(B) combining the executive and legislative power
(C) recognizing Judiciary a pioneer in implementing the act in letter and spirit
(D) educating the people before its implementation

Answer: C
Q59. The Prime Minister considered the Bill innovative and hoped that
(A) It could be reviewed based on the experience gained on its functioning.
(B) The civil servants would see the Bill in a positive spirit.
(C) It would not be considered as a draconian law for paralyzing Government
(D) All the above

Answer: D
Q60. The transparency and public accountability is the responsibility of three organs of the State. These three organs are
(A) Lok Sabha, Rajya Sabha and Judiciary
(B) Lok Sabha, Rajya Sabha and Executive
(C) Judiciary, Legislature and the Commission
(D) Legislature, Executive and Judiciary

Answer: D

## 16. Paper - I December - 2012

Q1. The English word 'Communication' is derived from the words
(A) Communis and Communicare
(B) Communist and Commune
(C) Communism and Communalism
(D) Communion and Common sense

Answer: A

## Q2. Chinese Cultural Revolution leader Mao Zedong used a

 type of communication to talk to the masses is known as(A) Mass line communication
(B) Group
communication
(C) Participatory communication
(D) Dialogue communication

Answer: A

Q3. Conversing with the spirits and ancestors is termed as
(A) Transpersonal communication
(B) Intrapersonal communication
(C) Interpersonal communication
(D) Face-to-face communication

Answer: A

Q4. The largest circulated daily newspaper among the following is
(A) The Times of India
(B) The Indian

Express
(C) The Hindu
(D) The Deccan

Herald
Answer: A

Q5. The pioneer of the silent feature film in India was
(A) K.A. Abbas
(B) Satyajit Ray
(C) B.R. Chopra
(D) Dada Sahib Phalke

Answer: D

Q6. Classroom communication of a teacher rests on the principle of
(A) Infotainment
(B) Edutainment
(C) Entertainment
(D) Power equation
Answer: B

Q7. The missing number in the series :
$\mathbf{0 , 6}, 24,60,120, ?, 336$, is
(A) 240
(B) 220
(C) 280
(D) 210

Answer: D

Q8. A group of 7 members having a majority of boys is to be formed out of $\mathbf{6}$ boys and 4 girls. The number of ways the group can be formed is
(A) 80
(B) 100
(C) 90
(D) 110

Answer: B

Q9. The number of observations in a group is 40 . The average of the first 10 members is 4.5 and the average of the remaining 30 members is 3.5 . The average of the whole group is
(A) 4
(B) $15 / 2$
(C) $15 / 4$
(D) 6

Answer: C

Q10. If MOHAN is represented by the code KMFYL, then COUNT will be represented by
(A) AMSLR
(B) MSLAR
(C) MASRL
(D) SAMLR

Answer: A

Q11. The sum of the ages of two persons $A$ and $B$ is 50.5 years ago, the ratio of their ages was $5 / 3$. The present age of $A$ and $B$ are
(A) 30,20
(B) 35,15
(C) 38,12
(D) 40,10

Answer: A

Q12. Let a means minus ( - ), $b$ means multiplied by $(x)$, $C$ means divided by ( $\div$ ) and $D$ means plus ( + ). The value of 90 D 9 a 29 C 10 b 2 is
(A) 8
(B) 10
(C) 12
(D) 14

Answer: *
Q13. Consider the Assertion-I and Assertion-II and select the right code given below :
Assertion-I : Even Bank-lockers are not safe. Thieves can break them and take away your wealth. But thieves cannot go to heaven. So you should keep your wealth in heaven.
Assertion-II : The difference of skin colour of beings is because of the distance from the sun and not because of some permanent traits. Skin-colour is the result of body's reaction to the sun and its rays.
Codes:
(A) Both the assertions-I and II are forms of argument.
(B) The assertion-I is an argument but the assertion-II is not.
(C) The assertion-II is an argument but the assertion-I is not.
(D) Both the assertions are explanations of facts.

Answer: B

Q14. By which of the following proposition, the proposition 'some men are not honest' is contradicted?
(A) All men are honest.
(B) Some men are honest.
(C) No men are honest.
(D) All of the above.

Answer: A

## Q15. A stipulative definition is

(A) always true
(B) always false
(C) sometimes true sometimes false
(D) neither true nor false

## Answer: D

Q16. Choose the appropriate alternative given in the codes to replace the question mark.
Examiner - Examinee, Pleader - Client, Preceptor - ?
(A) Customer
(B) Path-finder
(C) Perceiver
(D) Disciple
Answer: D

Q17. If the statement 'most of the students are obedient' is taken to be true, which one of the following pair of statements can be claimed to be true?
I. All obedient persons are students.
II. All students are obedient.
III. Some students are obedient.
IV. Some students are not disobedient.

Codes :
(A) I \& II
(B) II \& III
(C) III \& IV
(D) II \& IV

Answer: C

## Q18. Choose the right code:

A deductive argument claims that:
I. The conclusion does not claim something more than that which is contained in the premises.
II. The conclusion is supported by the premise/premises conclusively.
III. If the conclusion is false, then premise/premises may be either true or false.
IV. If premise/combination of premises is true, then conclusion must be true. Codes :
(A) I and II
(B) I and III
(C) II and III
(D) All the above

Answer: A

## On the basis of the data given in the following table, give answers to questions from 19 to 24 :

| Government Expenditures on Social Services (As percent of total expenditure) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} \text { Sl. } \\ \text { No. } \end{gathered}$ | Items | $\begin{array}{\|c} \hline 2007 \\ -08 \end{array}$ | $\begin{gathered} 2008 \\ -09 \end{gathered}$ | $\begin{gathered} 2009 \\ -10 \end{gathered}$ | $\begin{gathered} 2010 \\ -11 \end{gathered}$ |
|  | Social Services | 11.06 | 12.94 | 13.06 | 14.02 |
| (a) | Education, sports \& youth affair | 4.02 | 4.04 | 3.96 | 4.46 |
| (b) | Health \& family welfare | 2.05 | 1.91 | 1.90 | 2.03 |
| (c) | Water supply, housing, etc. | 2.02 | 2.31 | 2.20 | 2.27 |
| (d) | Information \& broadcasting | 0.22 | 0.22 | 0.20 | 0.22 |
| (e) | Welfare to SC/ST \& OBC | 0.36 | 0.35 | 0.41 | 0.63 |
| (f) | Labour and employment | 0.27 | 0.27 | 0.22 | 0.25 |
| (g) | Social welfare \& nutrition | 0.82 | 0.72 | 0.79 | 1.06 |
| (h) | North-eastern areas | 0.00 | 1.56 | 1.50 | 1.75 |
| (i) | Other social services | 1.29 | 1.55 | 1.87 | 1.34 |
|  | Total Government expenditure | 100 | 100 | 100 | 100 |

Q19. How many activities in the social services are there where the expenditure has been less than 5 percent of the total expenditures incurred on the social services in 2008-09?
(A) One
(B) Three
(C) Five
(D) All the above

Answer: D

Q20. In which year, the expenditures on the social services have increased at the highest rate?
(A) 2007-08
(B) 2008-09
(C) 2009-10
(D) 2010-11

Answer: B

Q21. Which of the following activities remains almost stagnant in terms of share of expenditures?
(A) North-eastern areas
(B) Welfare to SC/ST
\& OBC
(C) Information \& broadcasting
(D) Social welfare and nutrition
Answer: C

Q22. Which of the following item's expenditure share is almost equal to the remaining three items in the given years?
(A) Information \& broadcasting
(B) Welfare to SC/ST and OBC
(C) Labour and employment
(D) Social
welfare \& nutrition

## Answer: D

Q23. Which of the following items of social services has registered the highest rate of increase in expenditures during 2007-08 to 201011?
(A) Education, sports \& youth affairs

OBC
(C) Social welfare \& nutrition social services
(B) Welfare to SC/ST \&

Answer: B
Q24. Which of the following items has registered the highest rate of decline in terms of expenditure during 2007-08 to 2009-10?
(A) Labour and employment
(B) Health \& family welfare
(C) Social welfare \& nutrition
(D) Education, sports \& youth
affairs
Answer: A
Q25. ALU stands for
(A) American Logic Unit
(B) Alternate Local Unit
(C) Alternating Logic Unit
(D) Arithmetic Logic Unit

Answer: D

Q26. A Personal Computer uses a number of chips mounted on a circuit board called
(A) Microprocessor
(B) System Board
(C) Daughter Board
(D) Mother Board
Answer: D

Q27. Computer Virus is a
(A) Hardware
(B) Bacteria
(C) Software

Answer: C

Q28. Which one of the following is correct?
(A) $(17)_{10}=(17)_{16}$
(B) $(17)_{10}=(17)_{8}$
(C) $(17)_{10}=(10111)_{2}$
(D) $(17)_{10}=(10001)_{2}$

Answer: D

Q29. The file extension of MS-Word document in Office 2007 is
$\qquad$
(A) .pdf
(B) .doc
(C) . docx
(D) .txt

Answer: C

Q30. .............. is a protocol used by e-mail clients to download emails to your computer.
(A) TCP
(B) FTP
(C) SMTP
(D) POP

Answer: D
Q31. Which of the following is a source of methane?
(A) Wetlands
(B) Foam Industry
(C) Thermal Power Plants
(D) Cement Industry

Q32. 'Minamata disaster' in Japan was caused by pollution due to
(A) Lead
(C) Cadmium

Answer: B

## Q33. Biomagnification means increase in the

(A) concentration of pollutants in living organisms
(B) number of species
(C) size of living organisms
(D) biomass

Answer: A

Q34. Nagoya Protocol is related to
(A) Climate change
(C) Hazardous waste
(B) Ozone depletion

Answer: D

Q35. The second most important source after fossil fuels contributing to India's energy needs is
(A) Solar energy
(B) Nuclear energy
(C) Hydropower
(D) Wind energy

Answer: C

Q36. In case of earthquakes, an increase of magnitude 1 on Richter Scale implies
(A) a ten-fold increase in the amplitude of seismic waves.
(B) a ten-fold increase in the energy of the seismic waves.
(C) two-fold increase in the amplitude of seismic waves.
(D) two-fold increase in the energy of seismic waves.

Answer: A

Q37. Which of the following is not a measure of Human Development Index?
(A) Literacy Rate
(B) Gross Enrolment
(C) Sex Ratio
(D) Life Expectancy

Answer: C
Q38. India has the highest number of students in colleges after
(A) the U.K.
(B) the U.S.A.
(C) Australia
(D) Canada

Answer: B

Q39. Which of the following statement(s) is/are not correct about the Attorney General of India?

1. The President appoints a person, who is qualified to be a Judge of a High Court, to be the Attorney General of India.
2. He has the right of audience in all the Courts of the country.
3. He has the right to take part in the proceedings of the Lok Sabha and the Rajya Sabha.
4. He has a fixed tenure.

Select the correct answer from the codes given below :
Codes:
(A) 1 and 4
(B) 2, 3 and 4
(C) 3 and 4
(D) 3 only

Answer: A

Q40. Which of the following prefix President Pranab Mukherjee desires to be discontinued while interacting with Indian dignitaries as well as in official notings?

1. His Excellency
2. Mahamahim
3. Hon'ble
4. Shri/Smt.

Select the correct answer from the codes given below:
Codes:
(A) 1 and 3
(B) 2 and 3
(C) 1 and 2
(D) 1, 2 and 3

Answer: C
Q41. Which of the following can be done under conditions of financial emergency?

1. State Legislative Assemblies can be abolished.
2. Central Government can acquire control over the budget and expenditure of States.
3. Salaries of the Judges of the High Courts and the Supreme Court can be reduced.
4. Right to Constitutional Remedies can be suspended.

Select the correct answer from the codes given below:

## Codes:

(A) 1, 2 and 3
(B) 2, 3 and 4
(C) 1 and 2
(D) 2 and 3
Answer: D

Q42. Match List - I with List - II and select the correct answer from the codes given below:

## List - I

(a) Poverty Reduction Programme
(b) Human Development Scheme
(ii) Indira Awas Yojana (IAY)
(c) Social Assistance Scheme
(d) Minimum Need Scheme

Codes:
(a) (b) (c) (d)
(A) (iv) (i) (iii) (ii)
(B) (ii) (iii) (iv) (i)
(C) (iii) (iv) (i) (ii)
(D) (iv) (iii) (ii) (i)

Answer: A

Q43. For an efficient and durable learning, learner should have
(A) ability to learn only
(B) requisite level of motivation only
(C) opportunities to learn only
(D) desired level of ability and motivation

Answer: D

## Q44. Classroom communication must be

(A) Teacher centric
(B) Student centric
(C) General centric
(D) Textbook centric

Answer: B

Q45. The best method of teaching is to
(A) impart information
(B) ask students to read books
(C) suggest good reference material
(D) initiate a discussion and participate in it

Answer: D

Q46. Interaction inside the classroom should generate
(A) Argument
(B) Information
(C) Ideas
(D) Controversy
Answer: C

Q47. "Spare the rod and spoil the child", gives the message that (A) punishment in the class should be banned.
(B) corporal punishment is not acceptable.
(C) undesirable behaviour must be punished.
(D) children should be beaten with rods.

Answer: C
Q48. The type of communication that the teacher has in the classroom, is termed as
(A) Interpersonal
(B) Mass
communication
(C) Group communication
(D) Face-to-face communication

Answer: C
Q49. Which one of the following is an indication of the quality of a research journal?
(A) Impact factor
(B) h-index
(C) g-index
(D) i10-index
Answer: A

## Q50. Good 'research ethics' means

(A) Not disclosing the holdings of shares/stocks in a company that sponsors your research.
(B) Assigning a particular research problem to one Ph.D./research student only.
(C) Discussing with your colleagues confidential data from a research paper that you are reviewing for an academic journal.
(D) Submitting the same research manuscript for publishing in more than one journal.

## Answer: B

Q51. Which of the following sampling methods is based on probability?
(A) Convenience sampling
(B) Quota sampling
(C) Judgement sampling
(D) Stratified sampling
Answer: D

Q52. Which one of the following references is written according to American Psychological Association (APA) format?
(A) Sharma, V. (2010). Fundamentals of Computer Science.

New Delhi : Tata McGraw Hill
(B) Sharma, V. 2010. Fundamentals of Computer Science.

New Delhi : Tata McGraw Hill
(C) Sharma.V. 2010. Fundamentals of Computer Science,

New Delhi : Tata McGraw Hill
(D) Sharma, V. (2010), Fundamentals of Computer Science, New Delhi : Tata McGraw Hill

## Answer: A

Q53. Arrange the following steps of research in correct sequence:

1. Identification of research problem
2. Listing of research objectives
3. Collection of data
4. Methodology
5. Data analysis
6. Results and discussion
(A) 1-2-3-4-5-6
(B) 1-2-4-3-5-6
(C) 2-1-3-4-5-6
(D) $2-1-4-3-5-6$

Answer: B

## Q54. Identify the incorrect statement:

(A) A hypothesis is made on the basis of limited evidence as a starting point for further investigations.
(B) A hypothesis is a basis for reasoning without any assumption of its truth.
(C) Hypothesis is a proposed explanation for a phenomenon.
(D) Scientific hypothesis is a scientific theory.

## Answer: D

## Read the following passage carefully and answer the questions (55 to 60):

The popular view of towns and cities in developing countries and of urbanization process is that despite the benefits and comforts it brings, the emergence of such cities connotes environmental degradation, generation of slums and squatters, urban poverty, unemployment, crimes, lawlessness, traffic chaos etc. But what is the reality? Given the unprecedental increase in urban population over the last 50 years from 300 million in 1950 to 2 billion in 2000 in developing countries, the wonder really is how well the world has coped, and not how badly.
In general, the urban quality of life has improved in terms of availability of water and sanitation, power, health and education, communication and transport. By way of illustration, a large number of urban residents have been provided with improved water in urban areas in Asia's largest countries such as China, India, Indonesia and Philippines. Despite that, the access to improved water in terms of percentage of total urban population seems to have declined during the last decade of 20th century, though in absolute numbers, millions of additional urbanites, have been provided improved services. These countries have made significant progress in the provision of sanitation services
too, together, providing for an additional population of more than 293 million citizens within a decade (1990-2000). These improvements must be viewed against the backdrop of rapidly increasing urban population, fiscal crunch and strained human resources and efficient and quality-oriented public management.

Q55. The popular view about the process of urbanization in developing countries is
(A) Positive
(B) Negative
(C) Neutral
(D) Unspecified

## Answer: B

Q56. The average annual increase in the number of urbanites in developing countries, from 1950 to 2000 A.D. was close to
(A) 30 million
(B) 40 million
(C) 50 million
(D) 60 million

Answer: A
Q57. The reality of urbanization is reflected in
(A) How well the situation has been managed.
(B) How badly the situation has gone out of control.
(C) How fast has been the tempo of urbanization.
(D) How fast the environment has degraded.

Answer: A

Q58. Which one of the following is not considered as an indicator of urban quality of life?
(A) Tempo of urbanization
(B) Provision of basic services
(C) Access to social amenities
(D) All the above

Answer: A

Q59. The author in this passage has tried to focus on
(A) Extension of Knowledge
(B) Generation of Environmental Consciousness
(C) Analytical Reasoning
(D) Descriptive Statement

Answer: C

Q60. In the above passage, the author intends to state
(A) The hazards of the urban life
(B) The sufferings of the urban life
(C) The awareness of human progress
(D) The limits to growth

Answer: D

## 17. Paper - I June - 2013

Q1. 'www' stands for
(A) work with web
(B) word wide web
(C) world wide web
(D) worth while web

Answer: C

Q2. A hard disk is divided into tracks which is further
subdivided into
(A) Clusters
(B) Sectors
(C) Vectors
(D) Heads

Answer: B

Q3. A computer program that translates a program statement by statement into machine language is called a/an
(A) Compiler
(B) Simulator
(C) Translator
(D) Interpreter

Answer: D

Q4. A Gigabyte is equal to
(A) 1024 Megabytes
(B) 1024 Kilobytes
(C) 1024 Terabytes
(D) 1024 Bytes

Answer: A

## Q5. A Compiler is a software which converts

(A) Characters to bits
(B) High level language to machine language
(C) Machine language to high level language
(D) Words to bits

Answer: B

Q6. Virtual memory is
(A) an extremely large main memory.
(B) an extremely large secondary memory.
(C) an illusion of extremely large main memory
(D) a type of memory used in super computers.

Answer: C

Q7. The phrase 'tragedy of commons' is in the context of
(A) tragic event related to damage caused by release of poisonous gases.
(B) tragic conditions of poor people.
(C) degradation of renewable free access resources
(D) climate change

Answer: C

## Q8. Kyoto Protocol is related to

(A) Ozone depletion
(B) Hazardous waste
(C) Climate change

## Answer: C

Q9. Which of the following is a source of emissions leading to the eventual formation of surface ozone as a pollutant?
(A) Transport sector
(C) Wetlands
(B) Refrigeration and Air conditioning

Answer: A

Q10. The smog in cities in India mainly consists of
(A) Oxides Of sulphur
(B) Oxides of nitrogen and unburnt hydrocarbons
(C) Carbon monoxide and SPM
(D) Oxides of sulphur and ozone

Answer: B

Q11. Which of the following types of natural hazards have the highest potential to cause damage to humans?
(A) Earth quakes
(B) Forest fires
(C) Volcanic eruptions
(D) Droughts and

Floods

## Answer: D

Q12. The percentage share of renewable energy sources in the power production in India is around
(A) 2-3 \%
(B) $22-25 \%$
(C) $10-12 \%$
(D) $<1 \%$

Answer: C

Q13. In which of the following categories the enrollment of students in higher in 2010-11 was beyond the percentage of seats reserved?
(A) OBC students
(B) SC students
(C) ST students
(D) Woman students

Answer: A

Q14. Which one of the following statements is not correct about the University Grants Commission (UGC)?
(A) It was established in 1956 by an Act of Parliament.
(B) It is tasked with promoting and coordinating higher education.
(C) It receives Plan and Non-Plan funds from the Central Government.
(D) It receives funds from State Governments in respect of State Universities

Answer: D
Q15. Consider the statement which is followed by two arguments (I) and (II):

Statement: Should India switch over to a two party system?
Arguments: (I) Yes, it will lead to stability of Government.
(II) No, it will limit the choice of voters.
(A) Only argument (I) is strong.
(B) Only argument (II) is strong;
(C) Both the arguments are strong.
(D) Neither of the arguments is strong.

Answer: C
Q16. Consider the statement which is followed by two arguments
(I) and (II):

Statement: Should persons with criminal background be banned from contesting elections?
Arguments: (I) Yes, it will decriminalize politics.
(II) No, it will encourage the ruling party to file frivolous cases against their political opponents.
(A) Only argument (I) is strong.
(B) Only argument (II) is strong.
(C) Both the arguments are strong.
(D) Neither of the arguments is strong.

Answer: A

Q17. Which of the following statement(s) is/are correct about a Judge of the Supreme Court of India?

1. A Judge of the Supreme Court is appointed by the President of India.
2. He holds office during the pleasure of the President.
3. He can be suspended, pending an inquiry.
4. He can be removed for proven misbehavior or incapacity.

Select the correct answer from the codes given below:

## Codes:

(A) 1, 2 and 3
(B) 1,3 and 4
(C) 1 and 3
(D) 1 and 4

Answer: D

## Q18. In the warrant of precedence, the Speaker of the Lok Sabha

 comes next only to(A) The President
(B) The Vice-President
(C) The Prime Minister
(D) The Cabinet Ministers

Answer: C

## Q19. The black-board can be utilized best by a teacher for

(A) Putting the matter of teaching in black and white
(B) Making the students attentive
(C) Writing the important and notable points
(D) Highlighting the teacher himself

Answer: C

Q20. Nowadays the most effective mode of learning is
(A) Self study
(B) Face-to-face learning
(C) e-Learning
(D) Blended learning

Answer: C \& D

Q21. At the primary school stage, most of the teachers should be women because they
(A) can teach children better than men.
(B) know basic content better than men.
(C) are available on lower salaries.
(D) can deal with children with love and affection.

Answer: D
Q22. Which one is the highest order of learning?
(A) Chain learning
(B) Problem-solving
learning
(C) Stimulus-response learning $\quad$ (D) Conditioned-reflex learning

Answer: D

Q23. A person can enjoy teaching as a profession when he
(A) has control over students.
(B) commands respect from students.
(C) is more qualified than his colleagues.
(D) is very close to higher authorities.

Answer: B

Q24. "A diagram speaks more than 1000 words" The statement means that the teacher should
(A) use diagrams in teaching.
(B) speak more and more in the class.
(C) use teaching aids in the class.
(D) not speak too, much in the class.

Answer: C

Q25. A research paper
(A) is a compilation of information on a topic.
(B) contains original research as deemed by the author.
(C) contains peer-reviewed original research or evaluation of research conducted by others.
(D) can be published in more than one journal.

## Answer: C

## Q26. Which one of the following belongs to the category of good 'research ethics'?

(A) Publishing the same paper in two research journals without telling the editors.
(B) Conducting a review of the literature that acknowledges the contributions of other people in the relevant field or relevant prior work.
(C) Trimming outliers from a data set without discussing your reasons, in a research paper.
(D) Including a colleague as an author on a research paper in return for a favour even though the colleague did not make a serious contribution to the paper.

## Answer: B

Q27. Which of the following sampling methods is not based on probability?
(A) Simple Random Sampling
(B) Stratified Sampling
(C) Quota Sampling
(D) Cluster Sampling

Answer: C
Q28. Which one of the following references is written as per Modern Language Association (MLA) format?
(A) Hall, Donald. Fundamentals of Electronics,

New Delhi : Prentice Hall of India, 2005
(B) Hall, Donald, Fundamentals of Electronics,

New Delhi : Prentice Hall of India, 2005
(C) Hall, Donald, Fundamentals of Electronics,

New Delhi - Prentice Hall of India, 2005
(D) Hall, Donald. Fundamentals of Electronics.

New Delhi : Prentice Hall of India, 2005
Answer: D

## Q29. A workshop is

(A) a conference for discussion on a topic
(B) a meeting for discussion on a topic.
(C) a class at a college or a university in which a teacher and the students discuss a topic.
(D) a brief intensive course for a small group emphasizing the development of a skill or technique for solving a specific problem.

## Answer: D

## Q30. A working hypothesis is

(A) a proven hypothesis for an argument.
(B) not required to be tested
(C) a provisionally accepted hypothesis for further research
(D) a scientific theory

## Answer: C

Read the following passage carefully and answer the questions (31 to 36): The Taj Mahal has become one of the world's best known monuments. This domed white marble structure is situated on a high plinth at the southern end of a four-quartered garden evoking the gardens of paradise, enclosed within walls measuring 305 by 549 metres. Outside the walls, in an area known as Mumtazabad, were living quarters for attendants, markets, serais and other structures built by local merchants and nobles. The tomb complex and the other imperial structures of Mumtazabad were maintained by the income of thirty villages given specifically for the tomb's support. The name Taj Mahal is unknown in Mughal chronicles, but it is used by contemporary Europeans in India, suggesting that this was the tomb's popular name. In contemporary texts, it is generally called simply the Illuminated Tomb (Rauza-i-Munavvara).
Mumtaz Mahal died shortly after delivering her fourteenth child in 1631. The Mughal court was then residing in Burhanpur. Her remains were temporarily buried by the grief- stricken emperor in a spacious garden known as Zainabad on the bank of the river Tapti. Six months later her body was transported to Agra, where it was interred in land chosen for the mausoleum. This land, situated south of the Mughal city on the bank of the Jamuna, had belonged to the Kachhwaha rajas since the time of Raja Man Singh and was purchased from
the then current raja, Jai Singh. Although contemporary chronicles indicate Jai Singh's willing cooperation in this exchange, extant, farmans (imperial commands) indicate that the final price was not settled until almost two years after the mausoleum's commencement. Jai Singh's further cooperation was insured by imperial orders issued between 1632 and 1637 demanding that he provide stone masons and carts to transport marble from the mines at Makrana, within his "ancestral domain", to Agra where both the Taj Mahal and Shah Jahan's additions to the Agra fort were constructed concurrently.
Work on the mausoleum was commenced early in 1632. Inscriptional evidence indicates much of the tomb was completed by 1636. By 1643, when Shah Jahan most lavishly celebrated the 'Urs ceremony for Mumtaz Mahal', the entire complex was virtually complete.

Q31. Marble stone used for the construction of the Taj Mahal was brought from the ancestral domain of Raja Jai Singh. The name of the place where mines of marble is
(A) Burhanpur
(B) Makrana
(C) Amber
(D) Jaipur

Answer: B

## Q32. The popular name Taj Mahal was given by

(A) Shah Jahan
(B) Tourists
(C) Public
(D) European travelers

Answer: D
Q33. Point out the true statement from the following:
(A) Marble was not used for the construction of the Taj Mahal.
(B) Red sandstone is non-visible in the Taj Mahal complex.
(C) The Taj Mahal is surrounded by a four-quartered garden known as Chahr Bagh.
(D) The Taj Mahal was constructed to celebrate the 'Urs ceremony for Mumtaz Mahal'.
Answer: C
Q34. In the contemporary texts the Taj Mahal is known
(A) Mumtazabad
(B) Mumtaz Mahal
(C) Zainabad
(D) Rauza-i-Munavvara.
Answer: D

Q35. The construction of the Taj Mahal was completed between the period
(A) 1632-1636 A.D.
(B) 1630-1643A.D.
(C) 1632-1643 A.D.
(D) 1636-1643 A.D.

Answer: C
Q36. The documents indicating the ownership of land, where the Taj Mahal was built, known as
(A) Farman
(B) Sale Deed
(C) Sale-Purchase Deed
(D) None of the above

Answer: A

Q37. In the process of Communication, which one of the following is in the chronological order?
(A) Communicator, Medium, Receiver, Effect, Message
(B) Medium, Communicator, Message, Receiver, Effect
(C) Communicator, Message, Medium, Receiver, Effect
(D) Message, Communicator, Medium, Receiver, Effect

Answer: C
Q38. Bengal Gazette, the first Newspaper in India was started in 1780 by
(A) Dr. Annie Besant
(B) James Augustus Hicky
(C) Lord Cripson
(D) A.O. Hume

Answer: B

Q39. Press censorship in India was imposed during the tenure of the Prime Minister
(A) Rajeev Gandhi
(B) Narasimha Rao
(C) Indira Gandhi
(D) Deve Gowda

Answer: C
Q40. Communication via New media such as computers,
teleshopping, internet and mobile telephony is termed as
(A) Entertainment
(B) Interactive

Communication
(C) Development Communication
(D) Communitarian

Answer: B

Q41. Classroom communication of a teacher rests on the principle of
(A) Infotainment
(B) Edutainment
(C) Entertainment
(D) Enlightenment
Answer: B

Q42. ............... is important when a teacher communicates with his/her student
(A) Sympathy
(B) Empathy
(C) Apathy
(D) Antipathy
Answer: B

Q43. In a certain code GALIB is represented by HBMJC. TIGER will be represented by
(A) UJHFS
(B) UHJSF
(C) JHUSF
(D) HUJSF

Answer: A

Q44. In a certain cricket tournament 45 matches were played.
Each team played once against each of the other teams. The number of teams participated in the tournament is
(A) 8
(B) 10
(C) 12
(D) 14

Answer: B

Q45. The missing number in the series
$40,120,60,180,90, ?, 135$ is
(A) 110
(B) 270
(C) 105
(D) 210

Answer: B

Q46. The odd numbers from 1 to 45 which are exactly divisible by 3 are arranged in an ascending order. The number at $6^{\text {th }}$ position is
(A) 18
(B) 24
(C) 33
(D) 36

Answer: C

Q47. The mean of four numbers $a, b, c, d$ is 100 . If $c=70$, then the mean of the remaining numbers is
(A) 30
(B) $85 / 2$
(C) $170 / 3$
(D) 110

Answer: D

Q48. If the radius of a circle is increased by $50 \%$, the perimeter of the circle will incre ase by
(A) $20 \%$
(B) $30 \%$
(C) $40 \%$
(D) $50 \%$

Answer: D
Q49. If the statement 'some men are honest' is false, which among the following statements will be true
Choose the correct code given below:
(i) All men are honest
(ii) No men are honest
(iii) Some men are not honest
(iv) All men are dishonest

Codes:
(A) (i), (ii) and (iii)
(B) (ii), (iii) and
(iv)
(C) (i), (iii) and (iv)
(D) (ii), (i) and (iv)

Answer: B

Q50. Choose the proper alternative given in the codes to replace the question mark.
Bee-Honey, Cow-Milk, Teacher-?
(A) Intelligence
(B) Marks
(C) Lessons
(D) Wisdom

Answer: D
Q51. $\quad P$ is the father of $R$ and $S$ is the son of $Q$ and $T$ is the brother of $P$. If $R$ is the sister of $S$, how is $Q$ related to $T$ ?
(A) Wife
(B) Sister-in-law
(C) Brother-in-law
(D) Daughter-in-law

Answer: B

Q52. A definition put forward to resolve a dispute by influencing attitudes or stirring emotions is called
(A) Lexical
(B) Persuasive
(C) Stipulative
(D) Precisions

Answer: B

Q53. Which of the codes given below contains only the correct statements?
Statements:
(i) Venn diagram is a clear method of notation
(ii) Venn diagram is the most direct method of testing the validity of categorical syllogisms
(iii) In Venn diagram method the premises and the conclusion of a categorical syllogism is diagrammed.
(iv) In Venn diagram method the three overlapping circles are drawn for testing a categorical syllogism

## Codes:

(A) (i) (ii) \& (iii)
(B) (i) (ii) \& (iv)
(C) (ii) (iii) \& (iv)
(D) (i) (iii) \& (iv)

Answer: B

## Q54. Inductive reasoning presupposes

(A) unity in human nature
(B) integrity in human nature
(C) uniformity in human nature
(D) harmony in human nature

## Answer: C

Read the table below and based on this table answer questions

## from 55 to 60 :

| Area Under Major Horticulture Crops (in lakh hectares) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | Fruits | Vegetables | Flowers | Total Horticulture Area |
| $\begin{gathered} 2005- \\ 06 \end{gathered}$ | 53 | 72 | 1 | 187 |
| $\begin{gathered} 2006 \\ 07 \end{gathered}$ | 56 | 75 | 1 | 194 |
| $\begin{gathered} 2007- \\ 08 \end{gathered}$ | 58 | 78 | 2 | 202 |
| $\begin{gathered} 2008 \\ 09 \end{gathered}$ | 61 | 79 | 2 | 207 |
| $\begin{gathered} 2009 \\ 10 \end{gathered}$ | 63 | 79 | 2 | 209 |

Q55. Which of the following two years have recorded the highest rate of increase in area under the total horticulture?
(A) 2005-06 \& 2006-07
(B) 2006-07 \& 2008-

09
(C) 2007-08 \& 2008-09
(D) 2006-07 \& 2007-

08
Answer: D

Q56. Shares of the area under flowers, vegetables and fruits in the area under total horticulture are respectively:
(A) 1, 38 and 30 percent
(B) 30, 38 and 1 percent
(C) 38, 30 and 1 percent
(D) 35, 36 and 2 percent

Answer: A

Q57. Which of the following has recorded the highest rate of increase in are during 2005-06 to 2009-10?
(A) Fruits
(B) Vegetables
(C) Flowers
(D) Total horticulture

Answer: C

Q58. Find out the horticultural crop that has recorded an increase of area by around 10 percent from 2005-06 to 2009-10
(A) Fruits
(B) Vegetables
(C) Flowers
(D) Total horticulture

Answer: B

Q59. What has been the share of area under fruits, vegetables and flowers in the area under total horticulture in 2007-08?
(A) 53 percent
(B) 68 percent
(C) 79 percent
(D) 100 percent

Answer: B
Q60. In which year, area under fruits has recorded the highest rate of increase?
(A) 2006-07
(B) 2007-08
(C) 2008-09
(D) 2009-10

Answer: A

## 18. Paper - I June - 2013 (Retest)

Q1. The world population growth rate at a certain reference year was $3.5 \%$. Assuming exponential growth of population, after how many years, the population of the world would have increased by a factor 16 ?
(A) $\sim 80$ years
(B) ~ 40 years
(C) $\sim 160$ years
(D) $\sim 320$ years

Answer: A

Q2. Telephone is an example of
(A) linear communication
(B) non-linear communication
(C) circular
(D) mechanised

Answer: A

Q3. Means of grapevine communication are
(A) formal
(B) informal
(C) critical
(D) corporate

Answer: B

Q4. Communication issues at the international level are addressed by
(A) ILO
(C) UNDP
(B) ITU

Answer: D

Q5. Referential framing used by TV audience connects media with
(A) reality
(B) falsity
(C) negativity
(D) passivity

## Answer: A

Q6. The communicated knowledge in a classroom is considered as
(A) non-pervasive treasure
(B) limited judgement
(C) autonomous virtue
(D) cultural capital

Answer: D

Q7. Classroom communication is normally considered as
(A) effective
(B) affective
(C) cognitive
(D) non-selective

Answer: C

Q8. A person writes all the numbers from 0 to 99 . The number of times digit 3 will be written is
(A) 18
(B) 19
(C) 20
(D) 21

Answer: C

Q9. Starting from point A, Ajit walks 14 metres towards west, he then turns to his right and walks 14 metres and then turns to his left and walks 10 metres. He again turns to his left and walks 14 metres and reaches to the point $E$. The shortest distance between $A$ and $E$ is
(A) 38
(B) 42
(C) 52
(D) 24

Answer: D

Q10. $A, B, C, D, E$ and $F$ are sitting around a round table. $A$ is between $E$ and $F$. $E$ is opposite to $D$ and $C$ is not in either of the neighbouring seats of $E$. The person opposite to $B$ is
(A) C
(B) D
(C) A
(D) F

Answer: D

Q11. The missing term in the series $2,7,24,77, ?, 723$ is
(A) 238
(B) 432
(C) 542
(D) 320

Answer: A

Q12. In certain city the Taxi charges comprise of a fixed charge and the charge of the distance travelled. A person paid Rs. 156 for a journey of 16 km and another person paid Rs. 204 for the journey of $24 \mathbf{k m}$. The amount paid by a passenger who has travelled 30 km is
(A) 236
(B) 240
(C) 248
(D) 256

Answer: B

Q13. In certain code HEALTH is written as KHDOWK. The code of NORTH will be
(A) QRUWK
(B) RQWUK
(C) RWQUK
(D) RWUKQ

Answer: A
Q14. Yadav, Arjun, Rajesh and Kamal play cricket. Rajesh and Kamal play tennis but do not play football. Yadav does not play Badminton but play golf. Arjun does not play tennis. Kamal sometimes plays Badminton. Who does play only cricket?
(A) Yadav
(B) Arjun
(C) Rajesh
(D) Kamal

Answer: B

Q15. A deductive argument can not be valid :
(A) If its premise / premises is/are true and its conclusion is true.
(B) If its premise / premises is /are true and its conclusion is false.
(C) If its premise / premises is/are false and its conclusion is false.
(D) If its premise / premises is / are false and its conclusion is true.

Answer: B

Q16. An analogical argument is strengthened by
(A) making the claim bolder while its premises remain unchanged.
(B) reducing the claim made on the basis of the premises affirmed.
(C) remaining the claim unchanged while the evidence in its support is found to exhibit greater frailty.
(D) None of the above.

Answer: B

Q17. If two propositions cannot both be false but may both be true, what is the relation between the two propositions?
(A) Contrary
(B) Sub-contrary
(C) Sub-alternation
(D) Contradictory

Answer: B

## Q18. Given below are some codes of arrangements of three items

 in order of wider scope. Select the correct code.(A) Garments, cloth and shirts
(B) Cloth, garments and shirts
(C) Shirts, garments and cloth
(D) Garments, shirts and cloth

Answer: B

## Q19. What is equivalent of the statement ' All atheists are pessimists'?

(A) All non-pessimists are nonatheists.
(B) All non-atheists are nonpessimists.
(C) All pessimists are atheists.
(D) None of the above.

Answer: A
In the following table, trends in production of energy in India by primary sources are given. Study the table and answer Question Nos. 20 to 23 : (Production in peta Joules):

| Year |  <br> Lignite | Crude <br> Petroleum | Natural <br> Gas | Electricity <br>  <br> Nuclear) | Tota |
| :--- | :--- | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |


| $2006-$ <br> 07 | 7459 | 1423 | 1223 | 4763 | $14,8 \epsilon$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $2007-$ <br> 08 | 7926 | 1429 | 1248 | 4944 | $15,5<$ |
| $2008-$ <br> 09 | 8476 | 1403 | 1265 | 5133 | $16,2 \%$ |
| $2009-$ <br> 10 | 9137 | 1411 | 1830 | 4511 | $16,8 \varepsilon$ |
| $2010-$ <br> 11 | 9207 | 1579 | 2012 | 5059 | 17,8 ! |

Q20. In which year primary sources recorded the lowest growth in total production of energy?
(A) 2007-08
(B) 2008-09
(C) 2009-10
(D) 2010-11

Answer: C

Q21. Which source of energy has shown the highest growth rate in production during 2006-07 to 2010-11?
(A) Coal \& lignite
(B) Crude petroleum
(C) Hydro \& nuclear electricity
(D) Total production of energy

Answer: A

Q22. Which one of the following primary sources of energy has recorded the highest growth in production in 2008-09?
(A) Coal \& lignite
(B) Crude petroleum
(C) Natural gas
(D) Hydro \& nuclear
electricity

Answer: A
Q23. In which year, production of hydro and nuclear electricity was almost double the production of crude petroleum and natural gas taken together?
(A) 2006-07
(B) 2007-08
(C) 2008-09
(D) 2009-10

Answer: C
Q24. The Internet ethical protocol is called
(A) net protocol
(B) netiquette
(C) net ethics
(D) net morality

Answer: B
Q25. Commercial messages on the net are identified as
(A) Net ads
(B) Internet commercials
(C) Webmercials
(D) Viral advertisements
Answer: C

Q26. Manuel Castelle was the first to use the term
(A) Internet society
(B) Electronic society
(C) Network society
(D) Telematic society
Answer: C

Q27. GIF stands for
(A) Global Information Format
(B) Graphics Information Format
(C) Graphics Interchange File
(D) Graphics Interchange Format

Answer: D

Q28. Which one of the following is not an Operating System?
(A) IBM AIX
(B) Linux
(C) Sun Solaris
(D) Firefox

Answer: D

Q29. Which of the following is/are a minority institution(s)?

1. Punjabi University, Patiala
2. Osmania University, Hyderabad
3. Kashmir University, Srinagar
4. St. Stephens College, Delhi

Select the correct answer from the code given below :

## Codes :

(A) 1 and 2
(B) 2 and 4
(C) 2 only
(D) 4 only

Answer: D

Q30. Which of the following statements are correct about the National Advisory Council (NAC) ?

1. The National Advisory Council is a statutory body.
2. It is headed by the Prime Minister of India.
3. It facilitates constant interaction with the leaders of civil society.
4. It provides policy and legislative inputs to the Government of India.

Select the correct answer from the code given below :

## Codes :

(A) 1, 2 and 3
(B) 2, 3 and 4
(C) 1, 3 and 4
(D) 3 and 4

Answer: D
Q31. Which of the following are voluntary provisions in the $73{ }^{\text {rd }}$ Constitutional Amendment Act (1992) ?

1. Minimum age of 21 for contesting elections to Panchayats.
2. Indirect elections to the post of Chairperson of Panchayats at the intermediate and district levels.
3. Representation of Members of Parliament and State Legislature on Panchayati Raj institutions.
4. Reservation of seats for backward classes.

Select the correct answer from the code given below :

## Codes :

(A) 1, 2 and 4
(B) 2, 3 and 4
(C) 1, 2 and 3
(D) 3 and 4

Answer: D

Q32. In which of the following States the segment of population, which is in majority, enjoys the benefit of reservation of seats in the State Assembly?
(A) Meghalaya and Mizoram
(B) Assam and Nagaland
(C) Madhya Pradesh and Assam
(D) Rajasthan and Arunachal Pradesh

Answer: A

Q33. Which of the following are the ways of acquiring Indian citizenship?

1. Birth
2. Descent
3. Naturalisation
4. Incorporation of territory

Select the correct answer from the code given below :
Codes :
(A) 1 and 2
(B) 1 and 4
(C) 1, 2 and 3
(D) 1, 2, 3 and 4

Answer: D
Q34. Which of the following statements about the Union Public Service Commission are correct ?

1. UPSC is a Constitutional body.
2. It serves as an advisory body.
3. It is called upon to advise the Government in regard to representation of the Scheduled Castes and Scheduled Tribes in the Civil Service.
4. It is consulted on appointments of Chairman and members of Tribunals and Commissions.
Select the correct answer from the code given below : Codes :
(A) 1, 2 and 3
(B) 1, 2 and 4
(C) 1, 3 and 4
(D) 1 and 2

Answer: D

## Read the following passage carefully and answer Ouestion Nos. from 35 to 40 :

I had occasion to work with her closely during the Women's International Year in 1975 when she was chairing a Steering Committee and made me the member in charge of publicity. Representatives from different political parties and
women's organizations were on the committee and though the leftists claimed a sort of proprietary right over her, Aruna encouraged and treated all members alike. It was not her political affiliations or her involvement in a particular cause, which won her respect and recognition, but her utter honesty in public life, her integrity and her compassion for the oppressed which made her an adorable person. She had the courage to differ with and defy the mightiest in the land; yet her human spirit prompted her to work in the worst of slums to offer succour to the poor and the exploited.
In later years - around late eighties and early nineties - Aruna Asaf Ali’s health began to deteriorate. Though her mind remained alert, she could not actively take up her pet causes - action for women's advancement, planning for economic justice, role of media, reaffirmation of values in public affairs etc. Slowly, her movements were restricted and Aruna who had drawn sustenance from common people, from her involvement in public life, became a lonely person. She passed away in July 1996.

## Q35. Which Committee was chaired by Aruna ?

(A) Women's International Year's Committee
(B) Steering Committee of Women's International Year
(C) A Committee of Publicity
(D) Women's Organizations

## Answer: B

## Q36. Who were made the members of the Committee of Publicity ?

Choose the answer from codes given below :
(i) Representatives from different political parties.
(ii) Representatives from the leftist parties.
(iii) Representatives from the women's organizations.
(iv) None of the above.

## Codes :

(A) (i), (iii)
(B) (i), (ii)
(C) (i), (ii), (iii)
(D) (iv)

Answer: A
Q37. Aruna earned respect because of
(A) she identified with the leftists
(B) she did not associate with any political party
(C) chairing a Steering Committee
(D) she identified with women's organizations

Answer: B

Q38. Who tried to monopolize Aruna as their proprietary right?
(A) Women Organizations
(B) Leftists
(C) Steering Committee
(D) Some Political Parties

Answer: B
Q39. Aruna's health began to deteriorate from
(A) 1985-2002
(B) $1998-2000$
(C) 1981 - 2000
(D) 1989-2001

Answer: C

Q40. Aruna's pet cause(s) in her life was/ were
(A) Role of media
(B) Economic justice
(C) Reaffirmation of values in public affairs
(D) All the above

Answer: D
Q41. A good teacher must be
(A) resourceful and autocratic
(B) resourceful and participative
(C) resourceful and authoritative
(D) resourceful and dominant

Answer: B
Q42. Which one of the following is the best method of teaching ?
(A) Lecture method
(B) Discussion method
(C) Demonstration method
(D) Question-Answer method

Answer: C

Q43. Successful Communication in classroom teaching is
(A) Circular
(B) Reciprocal
(C) Directional
(D) Influential

Answer: B

Q44. Which one of the following types of evaluation assesses the learning progress to provide continuous feedback to both teachers and students during instruction?
(A) Placement evaluation
(B) Formative evaluation
(C) Diagnostic evaluation
(D) Summative

Answer: B
Q45. Which one of the following is a scaled down teaching situation ?
(A) Macro teaching
(B) Team teaching
(C) Cooperative teaching
(D) Micro teaching

Answer: D

## Q46. CLASS stands for

(A) Complete Literacy and Studies in Schools
(B) Computer Literates and Students in Schools
(C) Computer Literacy and Studies in Schools
(D) Centre for Literacy and Studies in Schools

Answer: C

Q47. Which one of the following is not a type of experimental method?
(A) Single group experiment
(B) Residual group experiment
(C) Parallel group experiment
(D) Rational group experiment

Answer: B
Q48. Which one of the following is not a non-parametric test ?
(A) t-test
(B) Sign test
(C) Chi-square test

Answer: A

Q49. Read the following statements - one labelled as Assertion (A) and the other as Reason (R) :
Assertion (A) : Qualitative research in India has a long way to go to reach international standards.
Reason (R) : Because the funding agencies do not support qualitative research in academic institutions.
Find the correct answer from the codes given below :
(A) Both (A) and (R) are true and (R) is the correct explanation of (A).
(B) Both (A) and (R) are true, but (R) is not the correct explanation of (A).
(C) (A) is true, but (R) is false.
(D) Both (A) and (R) are false.

Answer: C
Q50. Identify the correct sequence of research steps :
(A) Selection of topic, review of literature, data collection, interpretation of findings
(B) Review of literature, selection of topic, data collection, interpretation of findings
(C) Selection of topic, data collection, review of literature, interpretation of findings
(D) Selection of topic, review of literature, interpretation of findings, data collection
Answer: A
Q51. Deconstruction is a popular method of research in
(A) Basic Science
(B) Applied Science
(C) Social Science
(D) Literature

## Answer: D

Q52. With which one of the following techniques communality is associated?
(A) Univariate analysis
(B) Factor analysis
(C) Case studies
(D) SWOT analysis

Answer: B
Q53. The variable which impacts the relationship between an independent variable and a dependent variable is known as
(A) antecedent variable
(B) precedent variable
(C) predictor variable
(D) control variable
Answer: D

Q54. Which one of the following is a nonprobability sampling method?
(A) Simple Random Sampling
(B) Stratified Sampling
(C) Cluster Sampling
(D) Quota Sampling

Answer: D

Q55. By the year 2022, the Climate Change Action Plan of Government of India aims at installing
(A) $20,000 \mathrm{MW}$ of wind power
(B) 25,000 MW of wind power
(C) $20,000 \mathrm{MW}$ of solar power
(D) 10,000 MW of solar power

Answer: C
Q56. Which one of the following biosphere reserves has UNESCO recognition?
(A) Manas
(B) Kanchenjunga
(C) Seshachalam Hills
(D) Greater Nicobar

Answer: D

Q57. Which activity contributes to water pollution more than any other throughout world?
(A) Agriculture
(B) Hydroelectric power generation
(C) Industry
(D) Urbanisation

Answer: A

Q58. Match List - I with List - II and find the correct answer from the codes given below :
List - I (Biosphere Reserve)
a. Nilgiri
b. Manas
c. Similipal
d. Achankmar-Amarkantak

## List - II (Area of Location)

i. Deccan Peninsula
ii. Chhattisgarh
iii. Eastern Himalaya
iv. Western Ghat

## Codes :

a b c d
(A) i ii iii iv
(B) ii iii iv i
(C) iii iv ii i
(D) iv iii i ii

Answer: D

Q59. G5 are the five most important emerging economies of world. Which one of the following does not form part of G5 ?
(A) Mexico
(B) Brazil
(C) China
(D) Korea

Answer: D

Q60. Which of the following nations has the maximum per capita emissions of carbon di-oxide?
(A) China
(B) Japan
(C) USA
(D) India
Answer: C

## 19. Paper - I December - 2013

Q1. Which is the main objective of research ?
(A) To review the literature
(B) To summarize what is already known
(C) To get an academic degree
(D) To discover new facts or to make fresh interpretation of known facts

Answer: D
Q2. Sampling error decreases with the
(A) decrease in sample size
(B) increase in sample size
(C) process of randomization
(D) process of analysis

Answer: B

Q3. The principles of fundamental research are used in
(A) action research
(B) applied research
(C) philosophical research
(D) historical research

Answer: B

Q4. Users who use media for their own ends are identified as
(A) Passive audience
(B) Active audience
(C) Positive audience
(D) Negative audience

Answer: B

Q5. Classroom communication can be described as
(A) Exploration

Institutionalisation
(C) Unsignified narration
(D) Discourse

## Answer: D

Q6. Ideological codes shape our collective
(A) Productions
(B) Perceptions
(C) Consumptions
(D) Creations

Answer: B

Q7. In communication, myths have power, but are
(A) uncultural
(C) imprecise
(B) insignificant
(D) unpreferred

Q8. The first multi-lingual news agency of India was
(A) Samachar
(B) API
(C) Hindustan Samachar
(D) Samachar Bharati

Answer: C

Q9. Organisational communication can also be equated with (A) intra-personal communication.
(B) inter-personal communication.
(C) group communication.
(D) mass communication.

Answer: C

Q10. If two propositions having the same subject and predicate terms are such that one is the denial of the other, the relationship between them is called
(A) Contradictory
(B) Contrary
(C) Sub-contrary
(D) Sub-alternation

Answer: A

Q11. Ananya and Krishna can speak and follow English. Bulbul can write and speak Hindi as Archana does. Archana talks with Ananya also in Bengali. Krishna can not follow Bengali. Bulbul talks with

Ananya in Hindi. Who can speak and follow English, Hindi and Bengali ?
(A) Archana
(B) Bulbul
(C) Ananya
(D) Krishna

Answer: C
Q12. A stipulative definition may be said to be
(A) Always true
(B) Always false
(C) Sometimes true, sometimes false
(D) Neither true nor false

Answer: D
Q13. When the conclusion of an argument follows from its premise/premises conclusively, the argument is called
(A) Circular argument
(B) Inductive argument
(C) Deductive argument
(D) Analogical argument

Answer: C
Q14. Saturn and Mars are planets like the earth. They borrow light from the Sun and moves around the Sun as the Earth does. So those planets are inhabited by various orders of creatures as the earth is.
What type of argument is contained in the above passage ?
(A) Deductive
(B) Astrological
(C) Analogical
(D) Mathematical

Answer: C
Q15. Given below are two premises. Four conclusions are drawn from those two premises in four codes. Select the code that states the conclusion validly drawn.
Premises :
(i) All saints are religious. (major)
(ii) Some honest persons are saints. (minor)

## Codes :

(A) All saints are honest.
(B) Some saints are honest.
(C) Some honest persons are religious.
(D) All religious persons are honest.

Answer: C
Following table provides details about the Foreign Tourist Arrivals (FTAs) in India from different regions of the world in different years. Study the table carefully and answer questions from 16 to 19 based on this table.

$\left.$| Region | Number of Foreign <br> Tourist Arrivals |  |  |
| :---: | :---: | :---: | :---: |
|  | $\mathbf{2 0 0 7}$ | $\mathbf{2 0 0 8}$ | $\mathbf{2 0 0 9}$ |
| Western <br> Europe | 1686083 | 1799525 | 1610086 |
| North <br> America | 1007276 | 1027297 | 1024469 |
| South <br> Asia | 982428 | 1051846 | 982633 |
| South <br> East <br> Asia | 303475 | 332925 | 348495 |
| East <br> Asia | 352037 | 355230 | 318292 |
| West <br> Asia | 171661 | 215542 | 201110 |
| Total | 5081504 | 5282603 | 5108579 |
| FTAs in |  |  |  |
| India |  |  |  |$~ \$ \quad \right\rvert\,$

Q16. Find out the region that contributed around 20 percent of the total foreign tourist arrivals in India in 2009.
(A) Western Europe
(B) North America
(C) South Asia
(D) South East Asia

Answer: B

Q17. Which of the following regions has recorded the highest negative growth rate of foreign tourist arrivals in India in 2009 ?
(A) Western Europe
(B) North America
(C) South Asia
(D) West Asia

Answer: D

Q18. Find out the region that has been showing declining trend in terms of share of foreign tourist arrivals in India in 2008 and 2009.
(A) Western Europe
(B) South East Asia
(C) East Asia
(D) West Asia

Answer: A

Q19. Identify the region that has shown hyper growth rate of foreign tourist arrivals than the growth rate of the total FTAs in India in 2008.
(A) Western Europe
(B) North America
(C) South Asia
(D) East Asia

Answer: C

Q20. The post-industrial society is designated as
(A) Information society
(B) Technology society
(C) Mediated society
(D) Non-agricultural society

## Answer: A

Q21. The initial efforts for internet based communication was for
(A) Commercial communication
(B) Military purposes
(C) Personal interaction
(D) Political campaigns

Answer: B

Q22. Internal communication within institutions is done through
(A) LAN
(B) WAN
(C) EBB
(D) MMS

Answer: A

## Q23. Virtual reality provides

(A) Sharp pictures
(B) Individual audio
(C) Participatory experience
(D) Preview of new films

Answer: C

Q24. The first virtual university of India came up in
(A) Andhra Pradesh
(B) Maharashtra
(C) Uttar Pradesh
(D) Tamil Nadu

Answer: D

Q25. Arrange the following books in chronological order in which they appeared. Use the code given below :
(i) Limits to Growth
(ii) Silent Spring
(iii) Our Common Future
(iv) Resourceful Earth

Codes :
(A) (i), (iii), (iv), (ii)
(B) (ii), (iii), (i), (iv)
(C) (ii), (i), (iii), (iv)
(D) (i), (ii), (iii), (iv)

Answer: C
Q26. Which one of the following continents is at a greater risk of desertification?
(A) Africa
(B) Asia
(C) South America
(D) North America

Answer: A
Q27. "Women are closer to nature than men." What kind of perspective is this ?
(A) Realist
(B) Essentialist
(C) Feminist
(D) Deep ecology

Answer: B

Q28. Which one of the following is not a matter a global concern in the removal of tropical forests?
(A) Their ability to absorb the chemicals that contribute to depletion of ozone layer.
(B) Their role in maintaining the oxygen and carbon balance of the earth.
(C) Their ability to regulate surface and air temperatures, moisture content and reflectivity.
(D) Their contribution to the biological diversity of the planet.

Answer: A
Q29. The most comprehensive approach to address the problems of man-environment interaction is one of the following :
(A) Natural Resource Conservation Approach
(B) Urban-industrial Growth Oriented Approach
(C) Rural-agricultural Growth Oriented Approach
(D) Watershed Development Approach

Answer: D
Q30. The major source of the pollutant gas, carbon mono-oxide
(CO), in urban areas is
(A) Thermal power sector
(B) Transport sector
(C) Industrial sector
(D) Domestic sector

Answer: B

Q31. In a fuel cell driven vehicle, the energy is obtained from the combustion of
(A) Methane
(C) LPG
(B) Hydrogen

Answer: B

Q32. Which one of the following Councils has been disbanded in 2013 ?
(A) Distance Education Council (DEC)
(B) National Council for Teacher Education (NCTE)
(C) National Council of Educational Research and Training (NCERT)
(D) National Assessment and Accreditation Council (NAAC)

Answer: A
Q33. Which of the following statements are correct about the National Assessment and Accreditation Council ?

1. It is an autonomous institution.
2. It is tasked with the responsibility of assessing and accrediting institutions of higher education.
3. It is located in Delhi.
4. It has regional offices.

Select the correct answer from the codes given below :
Codes :
(A) 1 and 3
(B) 1 and 2
(C) 1, 2 and 4
(D) 2, 3 and 4

Answer: B
Q34. The power of the Supreme Court of India to decide disputes between two or more States falls under its
(A) Advisory Jurisdiction
(B) Appellate Jurisdiction
(C) Original Jurisdiction
(D) Writ Jurisdiction

Answer: C
Q35. Which of the following statements are correct ?

1. There are seven Union Territories in India.
2. Two Union Territories have Legislative Assemblies
3. One Union Territory has a High Court.
4. One Union Territory is the capital of two States.

Select the correct answer from the codes given below :
(A) 1 and 3 only
(B) 2 and 4 only
(C) 2, 3 and 4 only
(D) 1, 2, 3 and 4

Answer: D
Q36. Which of the following statements are correct about the Central Information Commission?

1. The Central Information Commission is a statutory body.
2. The Chief Information Commissioner and other Information Commissioners are appointed by the President of India.
3. The Commission can impose a penalty upto a maximum of Rs $25,000 /-$
4. It can punish an errant officer.

Select the correct answer from the codes given below : Codes :
(A) 1 and 2 only
(B) 1, 2 and 4
(C) 1, 2 and 3
(D) 2, 3 and 4

## Answer: C

Q37. Who among the following conducted the CNN-IBN - The Hindu 2013 Election Tracker Survey across 267 constituencies in 18 States?
(A) The Centre for the Study of Developing Societies (CSDS)
(B) The Association for Democratic Reforms (ADR)
(C) CNN and IBN
(D) CNN, IBN and The Hindu

Answer: A
Q38. In certain code TEACHER is written as VGCEJGT. The code of CHILDREN will be
(A) EKNJFTGP
(B) EJKNFTGP
(C) KNJFGTP
(D) None of these

Answer: B
Q39. A person has to buy both apples and mangoes. The cost of one apple is Rs $7 /-$ whereas that of a mango is Rs $5 /-$. If the person has Rs 38 , the number of apples he can buy is
(A) 1
(B) 2
(C) 3
(D) 4
Answer: D

Q40. A man pointing to a lady said, "The son of her only brother is the brother of my wife". The lady is related to the man as
(A) Mother's sister
(B) Grand mother
(C) Mother-in-law
(D) Sister of Father-in-law

Answer: D
Q41. In this series
$6,4,1,2,2,8,7,4,2,1,5,3,8,6,2,2,7,1,4,1,3,5,8,6$, how many pairs of successive numbers have a difference of 2 each ?
(A) 4
(B) 5
(C) 6
(D) 8

Answer: C

Q42. The mean marks obtained by a class of 40 students is 65 . The mean marks of half of the students is found to be 45. The mean marks
of the remaining students is
(A) 85
(B) 60
(C) 70
(D) 65

Answer: A

Q43. Anil is twice as old as Sunita. Three years ago, he was three times as old as Sunita. The present age of Anil is
(A) 6 years
(B) 8 years
(C) 12 years
(D) 16 years

Answer: C
Q44. Which of the following is a social network?
(A) amazon.com
(B) eBay
(C) gmail.com
(D) Twitter

Answer: D

Q45. The population information is called parameter while the corresponding sample information is known as
(A) Universe
(B) Inference
(C) Sampling design
(D) Statistics

Answer: D
Read the following passage carefully and answer questions 46 to 51 :
Heritage conservation practices improved worldwide after the International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM) was established with UNESCO's assistance in 1959. The intergovernmental organisation with 126 member states has done a commendable job by training more than 4,000 professionals, providing practice standards, and sharing technical expertise. In this golden jubilee year, as we acknowledge its key role in global conservation, an assessment of international practices would be meaningful to the Indian conservation movement. Consistent investment, rigorous attention, and dedicated research and dissemination are
some of the positive lessons to imbibe. Countries such as Italy have demonstrated that prioritising heritage with significant budget provision pays. On the other hand, India, which is no less endowed in terms of cultural capital, has a long way to go. Surveys indicate that in addition to the 6,600 protected monuments, there are over 60,000 equally valuable heritage structures that await attention. Besides the small group in the service of Archaeological Survey of India, there are only about 150 trained conservation professionals. In order to overcome this severe shortage the emphasis has been on setting up dedicated labs and training institutions. It would make much better sense for conservation to be made part of mainstream research and engineering institutes, as has been done in Europe.
Increasing funding and building institutions are the relatively easy part. The real challenge is to redefine international approaches to address local contexts. Conservation cannot limit itself to enhancing the art-historical value of the heritage structures, which international charters perhaps overemphasise. The effort has to be broad-based : It must also serve as a means to improving the quality of life in the area where the heritage structures are located. The first task therefore is to integrate conservation efforts with sound development plans that take care of people living in the heritage vicinity. Unlike in western countries, many traditional building crafts survive in India, and conservation practices offer an avenue to support them. This has been acknowledged by the Indian National Trust for Art and Cultural Heritage charter for conservation but is yet to receive substantial state support. More strength for heritage conservation can be mobilised by aligning it with the green building movement. Heritage structures are essentially eco-friendly and conservation could become a vital part of the sustainable building practices campaign in future.

## Q46. The outlook for conservation heritage changed

 (A) after the establishment of the International Centre for the Study of the Preservation and Restoration of Cultural Property.(B) after training the specialists in the field.
(C) after extending UNESCO's assistance to the educational institutions.
(D) after ASI's measures to protect the monuments.

## Answer: A

Q47. The inter-government organization was appreciated because of
(A) increasing number of members to 126 .
(B) imparting training to professionals and sharing technical expertise.
(C) consistent investment in conservation.
(D) its proactive role in renovation and restoration.

Answer: B
Q48. Indian conservation movement will be successful if there would be
(A) Financial support from the Government of India.
(B) Non-governmental organisations role and participation in the conservation movement.
(C) consistent investment, rigorous attention, and dedicated research and dissemination of awareness for conservation.
(D) Archaeological Survey of India's meaningful assistance.

Answer: C
Q49. As per the surveys of historical monuments in India, there is very small number of protected monuments. As per given the total number of monuments and enlisted number of protected monuments, percentage comes to
(A) 10 percent
(B) 11 percent
(C) 12 percent
(D) 13 percent

Answer: B

Q50. What should India learn from Europe to conserve our cultural heritage ?
(i) There should be significant budget provision to conserve our cultural heritage.
(ii) Establish dedicated labs and training institutions.
(iii) Force the government to provide sufficient funds.
(iv) Conservation should be made part of mainstream research and engineering institutes.
Choose correct answer from the codes given below :
(A) (i), (ii), (iii), (iv)
(B) (i), (ii), (iv)
(C) (i), (ii)
(D) (i), (iii), (iv)

Answer: B

Q51. INTACH is known for its contribution for conservation of our cultural heritage. The full form of INTACH is
(A) International Trust for Art and Cultural Heritage.
(B) Intra-national Trust for Art and Cultural Heritage
(C) Integrated Trust for Art and Cultural Heritage
(D) Indian National Trust for Art and Cultural Heritage

Answer: D

Q52. While delivering lecture if there is some disturbance in the class, a teacher should
(A) keep quiet for a while and then continue.
(B) punish those causing disturbance.
(C) motivate to teach those causing disturbance.
(D) not bother of what is happening in the class.

Answer: C

## Q53. Effective teaching is a function of

(A) Teacher's satisfaction.
(B) Teacher's honesty and commitment.
(C) Teacher's making students learn and understand.
(D) Teacher's liking for professional excellence.

Answer: C
Q54. The most appropriate meaning of learning is
(A) Acquisition of skills
(B) Modification of behaviour
(C) Personal adjustment
(D) Inculcation of knowledge

Answer: B
Q55. Arrange the following teaching process in order :
(i) Relate the present knowledge with previous one
(ii) Evaluation
(iii) Reteaching
(iv) Formulating instructional objectives
(v) Presentation of instructional materials
(A) (i), (ii), (iii), (iv), (v)
(B) (ii), (i), (iii), (iv), (v)
(C) (v), (iv), (iii), (i), (ii)
(D) (iv), (i), (v), (ii), (iii)

## Answer: D

## Q56. CIET stands for

(A) Centre for Integrated Education and Technology
(B) Central Institute for Engineering and Technology
(C) Central Institute for Education Technology
(D) Centre for Integrated Evaluation Techniques.

Answer: C
Q57. Teacher's role at higher education level is to
(A) provide information to students.
(B) promote self learning in students.
(C) encourage healthy competition among students.
(D) help students to solve their problems.

Answer: B
Q58. The Verstehen School of Understanding was popularised by
(A) German Social Scientists
(B) American Philosophers
(C) British Academicians
(D) Italian Political Analysts

Answer: A
Q59. The sequential operations in scientific research are (A) Co-variation, Elimination of Spurious Relations, Generalisation, Theorisation
(B) Generalisation, Co-variation, Theorisation, Elimination of Spurious

Relations
(C) Theorisation, Generalisation, Elimination of Spurious Relations, Covariation
(D) Elimination of Spurious Relations, Theorisation, Generalisation, Covariation.
Answer: A
Q60. In sampling, the lottery method is used for
(A) Interpretation
(B) Theorisation
(C) Conceptualisation
(D) Randomisation

Answer: D

## 20. Paper - I June - 2014

Q1. "If a large diamond is cut up into little bits, it will lose its value just as an army is divided up into small units of soldiers, it loses its strength."
The argument put above may be called as
(A) Analogical
(B) Deductive
(C) Statistical
(D) Casual

Answer: A
Q2. Given below are some characteristics of logical argument. Select the code which expresses a characteristic which is not of inductive in character.
(A) The conclusion is claimed to follow from its premises.
(B) The conclusion is based on causal relation.
(C) The conclusion conclusively follows from its premises.
(D) The conclusion is based on observation and experiment Answer: C

Q3. If two propositions having the same subject and predicate terms can both be true but cannot both be false, the relation between those two propositions is called
(A) contradictory
(B) contrary
(C) subcontrary
(D) subaltern
Answer: C

Q4. One writes all numbers from 50 to 99 without the digits 2 and 7. How many numbers have been written?
(A) 32
(B) 36
(C) 40
(D) 38

Answer: A

Q5. Given below is a diagram of three circles $A, B \& C$ interrelated with each other. The circle A represents the class of Indians, the circle $B$ represents the class of scientists and circle $C$ represents the class of politicians. $\mathbf{p , q}, \mathbf{r}, \mathbf{s} .$. represent different regions. Select the code containing the region that indicates the class of Indian scientists who are not politicians.

Codes:
(A) q and s only
(B) s only
(C) s and r only
(D) p, q and s only

Answer: B

Q6. Given below are two premises and four conclusions drawn from those premises. Select the code that expresses conclusion drawn validly from the premises (separately or jointly).
Premises:
(a) All dogs are mammals.
(b) No cats are dogs.

Conclusions:
(i) No cats are mammals
(ii) Some cats are mammals.
(iii) No Dogs are cats
(iv) No dogs are non-mammals.

Codes:
(A) (i) only
(B) (i) and (ii)
(C) (iii) and (iv)
(D) (ii) and (iii)
Answer: C

Read the following table carefully: Based upon this table answer questions from 7 to 11:
Net Area under Irrigation by sources in a country (Thousand Hectares)

| Year | Government Canals | Private Canals | Tanks | Tube wells and other wells | Other sources | T |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} 1997- \\ 98 \end{gathered}$ | 17117 | 211 | 2593 | 32090 | 3102 | 5 |
| $\begin{gathered} 1998- \\ 99 \end{gathered}$ | 17093 | 212 | 2792 | 33988 | 3326 | 5 |
| $\begin{array}{\|c} \hline 1999- \\ 00 \end{array}$ | 16842 | 194 | 2535 | 34623 | 2915 | 5 |
| $\begin{array}{\|c} \hline 2000- \\ 01 \end{array}$ | 15748 | 203 | 2449 | 33796 | 2880 | 5 |
| $\begin{array}{\|c} 2001- \\ 02 \end{array}$ | 15031 | 209 | 2179 | 34906 | 4347 | 57 |
| $\begin{array}{\|c} \hline 2002- \\ 03 \end{array}$ | 13863 | 206 | 1802 | 34250 | 3657 | 5 |
| $\begin{array}{\|c\|} \hline 2003- \\ 04 \end{array}$ | 14444 | 206 | 1908 | 35779 | 4281 | 57 |
| $\begin{array}{\|c\|} \hline 2004 \\ 05 \end{array}$ | 14696 | 206 | 1727 | 34785 | 7453 | 5 |
| $\begin{array}{\|c\|} \hline 2005- \\ 06 \end{array}$ | 15268 | 207 | 2034 | 35372 | 7314 | 6 |

Q7. Find out the source of irrigation that has registered the maximum improvement in terms of percentage of Net irrigated area during 2002-03 and 2003-04.
(A) Government Canals
(B) Tanks
(C) Tube Wells and other wells
(D) Other Sources

Answer: D

Q8. In which of the following years, Net irrigation by tanks increased at the highest rate?
(A) 1998-99
(B) 2000-01
(C) 2003-04
(D) 2005-06

Answer: D
Q9. Identify the source of irrigation that has recorded the maximum incidence of negative growth in terms of Net irrigated area during the years given in the table.
(A) Government Canals
(B) Private Canals
(C) Tube Wells and other wells
(D) Other sources

Answer: A

Q10. In which of the following years, share of the tube wells and other wells in the total net irrigated are a was the highest?
(A) 1998-99
(B) 2000-01
(C) 2002-03
(D) 2004-05
Answer: C

Q11. Which of the following sources of Irrigation has registered the largest percentage of decline in Net area under irrigation during 1997-98 and 2005-06 ?
(A) Government Canals
(B) Private Canals
(C) Tanks
(D) Other Sources

Answer: C

Q12. Which one of the following is not a/an image/graphic file format?
(A) PNG
(B) GIF
(C) BMP
(D) GUI

Answer: D

Q13. The first Web Browser is
(A) Internet Explorer
(B) Netscape
(C) World Wide Web
(D) Firefox
Answer: C

Q14. When a computer is booting, BIOS is loaded to the memory by
(A) RAM
(B) ROM
(C) CD-ROM
(D) TCP

Answer: B

Q15. Which one of the following is not the same as the other three?
(A) MAC address
(B) Hardware address
(C) Physical address
(D) IP address

Answer: D

Q16. Identify the IP address from the following:
(A) 300.215 .3173
(B) 302.215@417.5
(C) 202.50.20.148
(D) 202-50-20-148

Answer: C

Q17. The acronym FTP stands for
(A) File Transfer Protocol
(B) Fast Transfer Protocol
(C) File Tracking Protocol
(D) File Transfer Procedure

Answer: A

Q18. Which of the following cities has been worst affected by urban smog in recent times?
(A) Paris
(B) London
(C) Los Angeles
(D) Beijing

Answer: D

Q19. The primary source of organic pollution in fresh water bodies is
(A) run-off urban areas
(B) run-off from agricultural forms
(C) sewage effluents
(D) industrial effluents

Answer: C

Q20. 'Lahar' is a natural disaster involving
(A) eruption of large amount of material
(B) strong winds
(C) strong water waves
(D) strong winds and water waves

Answer: A

Q21. The population of India is about $\mathbf{1 . 2}$ billion. Take the average consumption of energy per person per year in India as 30 Mega Joules. If this consumption is met by carbon based fuels and the rate of carbon emissions per kilojoule is $15 \times 10^{6} \mathbf{~ k g s}$, the total carbon emissions per year from India will be
(A) 54 million metric tons
(B) 540 million metric tons
(C) 5400 million metric tons
(D) 2400 million metric tons

Answer: B

Q22. The National Disaster Management Authority functions under the Union Ministry of
(A) Environment
(B) Water Resources
(C) Home Affairs
(D) Defence

Answer: C

## Q23. Match List - I and List - II and select the correct answer

 from the codes given below:List - I
a. Flood
b. Drought

List - II

1. Lack of rainfall of sufficient duration
2. Tremors produced by the passage of vibratory waves through the rocks of the earth
c. Earthquake out
d. Volcano Codes:

|  | a | b | d |
| :--- | :--- | :--- | :--- |
| (A) 4 | 1 | 2 | 3 |
| (B) 2 | 3 | 4 | 1 |
| (C) 3 | 4 | 2 | 1 |
| (D) 4 | 3 | 1 | 2 |

Answer: A
Q24. Which one of the following green house gases has the shortest residence time in the atmosphere?
(A) Chlorofluorocarbon
(B) Carbon dioxide
(C) Methane
(D) Nitrous oxide

Answer: C
Q25. In order to avoid catastrophic consequences of climate change, there is general agreement among the countries of the world to limit the rise in average surface temperature of earth compared to that of pre-industrial times by
(A) $1.5^{\circ} \mathrm{C}$ to $2^{\circ} \mathrm{C}$
(B) $2.0^{\circ} \mathrm{C}$ to $3.5^{\circ} \mathrm{C}$
(C) $0.5^{\circ} \mathrm{C}$ to $1.0^{\circ} \mathrm{C}$
(D) $0.25^{\circ} \mathrm{C}$ to $0.5^{\circ} \mathrm{C}$

## Answer: A

Q26. Who among the following is the defacto executive head of the Planning Commission?
(A) Chairman
(B) Deputy Chairman
(C) Minister of State for Planning
(D) Member Secretary

Answer: B

Q27. Education as a subject of legislation figures in the
(A) Union List
(B) State List
(C) Concurrent List
(D) Residuary Powers

Answer: C
Q28. Which of the following are Central Universities?

1. Pondicherry University
2. Vishwa Bharati
3. H.N.B. Garhwal University
4. Kurukshetra University

Select the correct answer from the code given below:
Codes:
(A) 1, 2 and 3
(B) 1, 3 and 4
(C) 2, 3 and 4
(D) 1, 2 and 4

Answer: A

Q29. Consider the following statements and select the correct answer from the code given below:
i. Rajasthan receives the highest solar radiation in the country.
ii. India has the fifth largest installed wind power in the world.
iii. The maximum amount of wind power is contributed by Tamil Nadu.
iv. The primary source of uranium in India is Jaduguda.

## Codes:

(A) i and ii
(B) i, ii and iii
(C) ii and iii
(D) i and iv

Answer: D
Q30. Which of universities has adopted the meta university concept?
(A) Assam University
(B) Delhi University
(C) Hyderabad University
(D) Pondicherry University

Answer: B

## Q31. Which of the statements are correct about a Central University?

1. Central University is established under an Act of Parliament.
2. The President of India acts as the visitor of the University.
3. The President has the power to nominate some members to the Executive Committee or the Board of Management of the University.
4. The President occasionally presides over the meetings of the Executive Committee or Court.
Select the correct answer from the code given below:

## Codes:

(A) 1, 2 and 4
(B) 1, 3 and 4
(C) 1, 2 and 3
(D) 1, 2, 3 and 4

Answer: C
Q32. Consider the statement which is followed by two arguments (i) and (ii).

Statement: India should have a very strong and powerful Lokpal.
Arguments: (i) Yes, it will go a long in eliminating corruption in bureaucracy.
(ii) No, it will discourage honest officers from making quick decisions.

Codes:
(A) Only argument (i) is strong.
(B) Only argument (ii) is strong.
(C) Both the arguments are strong.
(D) Neither of the arguments is strong.

Answer: A

Q33. Which one of the following is the best method of teaching?
(A) Lecture
(B) Discussion
(C) Demonstration
(D) Narration

Answer: C

Q34. Dyslexia is associated with
(A) mental disorder
(B) behavioural disorder
(C) reading disorder
(D) writing disorder

Answer: C

Q35. The e-content generation for undergraduate courses has been assigned by the Ministry of Human Resource Development to
(A) INFLIBNET
(B) Consortium for Educational Communication
(C) National Knowledge Commission
(D) Indira Gandhi National Open University

Answer: B

Q36. Classroom communication is normally considered as
(A) effective
(B) cognitive
(C) affective
(D) selective

Answer: C

Q37. Which one of the following is considered a sign of motivated teaching?
(A) Students asking questions
(B) Maximum attendance of the students
(C) Pin drop silence in the classroom
(D) Students taking notes

Answer: A

Q38. In a thesis, figures and tables are included in (A) the appendix
(B) a separate chapter
(C) the concluding chapter
(D) the text itself

Answer: D
Q39. A thesis statement is
(A) an observation
(B) a fact
(C) an assertion
(D) a discussion
Answer: C

Q40. The research approach of Max Weber to understand how people create meanings in natural settings is identified as
(A) positive paradigm
(B) critical paradigm
(C) natural paradigm
(D) interpretative paradigm

Answer: D
Q41. Which one of the following is a non probability sampling?
(A) Simple Random
(B) Purposive
(C) Systematic
(D) Stratified

Answer: B

Q42. Identify the category of evaluation that assesses the learning progress to provide continuous feedback to the students during instruction.
(A) Placement
(B) Diagnostic
(C) Formative
(D) Summative

Answer: C

Q43. The research stream of immediate application is
(A) Conceptual research
(B) Action research
(C) Fundamental research
(D) Empirical research

Answer: B

# Q44. Who among the following propounded the concept of paradigm? 

(A) Peter Haggett
(B) Von Thunen
(C) Thomas Kuhn
(D) John K. Wright

Answer: C

## Read the following passage carefully and answer questions 45 to 49:

Traditional Indian Values must be viewed both from the angle of the individual and from that of the geographically delimited agglomeration of peoples or groups enjoying a common system of leadership which we call the 'State'. The Indian 'State's' special feature is the peaceful, or perhaps mostly peaceful, coexistence of social groups of various historical provenances which mutually adhere in a geographical, economic and political sense, without ever assimilating to each other in social terms, in ways of thinking, or even in language. Modern Indian law will determine certain rules, especially in relation to the regime of the family, upon the basis of how the loin-cloth is tied, or how the turban is worn, for this may identify the litigants as members of a regional group, and therefore as participants in its traditional law, though their ancestors left the region three or four centuries earlier. The use of the word 'State' above must not mislead us. There was no such thing as a conflict between the individual and the State, at least before foreign governments became established, just as there was no concept of state 'sovereignty' or of any church-and-state dichotomy.
Modem Indian 'secularism' has an admittedly peculiar feature: It requires the state to make a fair distribution of attention and support amongst all religions. These blessed aspects of India's famed tolerance (Indian kings so rarely persecuted religious groups that the exceptions prove the rule) at once struck Portuguese and other European visitors to the West Coast of India in the sixteenth century, and the impression made upon them in this and other ways gave rise, at one remove, to the basic constitution of Thomas More's Utopia. There is little about modern India that strikes one at once as Utopian: but the insistence upon the inculcation of norms, and the absence of bigotry and institutionalized exploitation of human or natural resources, are two very different features which link the realities of India and her tradition with the essence of all Utopians.

Q45. The author uses the word 'State' to highlight
(A) Antagonistic relationship between the state and the individual throughout the period of history.
(B) Absence of conflict between the state and the individuals upto a point in time.
(C) The concept of state sovereignty
(D) Dependence of religion

Answer: D
Q46. Which one is the peculiar feature of modern Indian 'Secularism'?
(A) No discrimination on religious considerations
(B) Total indifference to religion
(C) No space for social identity
(D) Disregard for social law

Answer: A

Q47. The basic construction of Thomas More's Utopia was inspired by
(A) Indian tradition of religious tolerance.
(B) Persecution of religious groups by Indian rulers.
(C) Social inequality in India.
(D) European perception of Indian State

Answer: A
Q48. What is the striking feature of modern India?
(A) A replica of Utopian State
(B) Uniform Laws
(C) Adherence to traditional values
(D) Absence of Bigotry

Answer: D
Q49. Which of the following is a special feature of the Indian state?
(A) peaceful co-existence of people under a common system of leadership
(B) peaceful co-existence of social groups of different historical provenances attached to each other in a geographical, economical and political sense
(C) Social integration of all groups
(D) Cultural assimilation of all social groups

Answer: B
Q50. The Telephone Model of Communication was first developed in the area of
(A) Technological theory
(B) Dispersion theory
(C) Minimal effects theory
(D) Information theory

Answer: D
Q51. The Dada Saheb Phalke Award for 2013 has been conferred on
(A) Karan Johar
(B) Amir Khan
(C) Asha Bhonsle
(D) Gulzar

Answer: D

Q52. Photographs are not easy to
(A) publish
(B) secure
(C) decode
(D) change

Answer: C
Q53. The grains that appear on a television set when operated are also referred to as
(A) sparks
(B) green Dots
(C) snow
(D) rain Drops

Answer: C

Q54. In circular communication, the encoder becomes a decoder when there is
(A) noise
(B) audience
(C) criticality
(D) feedback

Answer: D

Q55. Break-down in verbal communication is described as
(A) Short Circuit
(B) Contradiction
(C) Unevenness
(D) Entropy

Answer: D

Q56. In certain coding method, the word QUESTION is encoded as DOMESTIC. In this coding, what is the code word for the word RESPONSE?
(A) OMESUCEM
(B) OMESICSM
(C) OMESICEM
(D) OMESISCM

Answer: C

Q57. If the series $\mathbf{4 , 5 , 8 , 1 3 , 1 4 , 1 7 , 2 2 , \ldots . . . . .}$ is continued in the same pattern, which one of the following is not a term of this series?
(A) 31
(B) 32
(C) 33
(D) 35

Answer: C

Q58. Complete the series BB, FE, II, ML, PP,..........
(A) TS
(B) ST
(C) RS
(D) SR

Answer: A

Q59. A man started walking from his house towards south. After walking 6 km , he turned to his left and walked 5 km after. Then he walked further 3 km after turning left. He then turned to his left and continued his walk for $\mathbf{9} \mathbf{~ k m}$. How far is he away from his house?
(A) 3 km
(B) 4 km
(C) 5 km
(D) 6 km
Answer: C

Q60. In a post-office, stamps of three different denominations of Rs 7, Rs 8, Rs 10 are available. The exact amount for which one
cannot buy stamps is
(A) 19
(B) 20
(C) 23
(D) 29

Answer: A

## 21. Paper - I December - 2014

## Q1. CSS stands for

(A) Cascading Style Sheets
(B) Collecting Style Sheets
(C) Comparative Style Sheets
(D) Comprehensive Style Sheets

Answer: A

## Q2. MOOC stands for

(A) Media Online Open Course
(B) Massachusetts Open Online Course
(C) Massive Open Online Course
(D) Myrind Open Online Course

Answer: C

Q3. Binary equivalent of decimal number 35 is
(A) 100011
(B) 110001
(C) 110101
(D) 101011

Answer: A

Q4. gif, jpg, bmp, png are used as extensions for files which store
(A) Audio data
(B) Image data
(C) Video data
(D) Text data

Answer: B
Q5. Symbols A-F are used in which one of the following?
(A) Binary number system
(B) Decimal number system
(C) Hexadecimal number system
(D) Octal number system

## Answer: C

Q6. Which one of the following is not a search engine?
(A) Google (B) Chrome
(C) Yahoo
(D) Bing

Answer: B

Q7. In terms of total CO2 emissions from a country, identity the correct sequence:
(A) U.S.A. $>$ China $>$ India $>$ Russia
(B) China $>$ U.S.A. $>$ India $>$ Russia
(C) China $>$ U.S.A. $>$ Russia $>$ India
(D) U.S.A. $>$ China $>$ Russia $>$ India

## Answer: B

Q8. Match List - I and List - II and identify the correct code:
a. World Health Day
b. World Population Day
c. World Ozone Day
d. World AIDS Day
(A) i ii iii iv
(B) iv iii i ii
(C) ii iii iv i
(D) iii iv ii i

Answer: B

Q9. Which of the anthropogenic activity accounts for more than 2/3rd of global water consumption?
(A) Agriculture
(B) Hydropower generation
(C) Industry
(D) Domestic and Municipal usage

Answer: A

Q10. One of the anthropogenic sources of gaseous pollutants chlorofluorocarbons (CFCs) in air is
(A) Cement Industry
(B) Fertiliser industry
(C) Foam industry
(D) Pesticide industry

## Answer: C

Q11. The maximum number of fake institutions / universities as identified by the UGC in the year 2014 are in the State / Union territory of
(A) Bihar
(B) Uttar Pradesh
(C) Tamil Nadu
(D) Delhi

Answer: B

Q12. Which of the following institutions are empowered to confer or grant degrees under the UGC Act, 1956?
(A) A university established by an Act of Parliament.
(B) A university established by an Act of Legislature.
(C) A university / institution established by a linguistic minority.
(D) An institution which is a deemed to be university.

Answer: C
Q13. Which of the following are the tools of good governance?

1. Social Audit
2. Separation of Powers
3. Citizen's Charter
4. Right to Information

Select the correct answer from the codes given below:
(A) 1, 3 and 4
(B) 2, 3 and 4
(C) 1 and 4
(D) 1, 2, 3, and 4

Answer: D
Q14. The cyclone "Hudhud" hit the coast of which State?
(A) Andhra Pradesh
(B) Karnataka
(C) Kerala
(D) Gujarat

Answer: A

Q15. Which of the following is not a renewable natural resource?
(A) Clean air
(B) Fresh water
(C) Fertile soil
(D) Salt

Answer: D

Q16. Right to privacy as a Fundamental Right is implied in
(A) Right to Freedom
(B) Right to Life and Personal Liberty
(C) Right to Equality
(D) Right against Exploitation

Answer: B

Q17. Which of the following organizations deals with "capacity building programe" on Educational Planning?
(A) NCERT
(B) UGC
(C) NAAC
(D) NUEPA

Answer: D

Q18. Which of the following powers, the President has in relation to Lok Sabha?

1. Summoning

2 Adjournment- sine die
3. Prorogation
4. Dissolution

Select the correct answer from the codes given below:
(A) 1 and 4
(B) 1, 2 and 3
(C) 1,3 and 4
(D) 1, 2, 3 and 4

Answer: C
Q19. The interval between two sessions of parliament must not exceed
(A) 3 months
(B) 6 months
(C) 4 months
(D) 100 days

Answer: B

Q20. Maximum participation of students during teaching is possible through
(A) Lecture method
(C) Inductive method

Answer: C
(B) Demonstration method
(D) Textbook method

## Q21. Diagnostic evaluation ascertains

(A) Students performance at the beginning of instructions.
(B) Learning progress and failures during instructions.
(C) Degree of achievements of instructions at the end.
(D) Causes and remedies of persistent learning problems during instructions.

Answer: D
Q22. Instructional aides are used by the teacher to
(A) Glorify the class
(B) Attract the students
(C) Clarify the concepts
(D) Ensure discipline

Answer: C
Q23. Attitude of the teacher that affects teaching pertains to
(A) Affective domain
(B) Cognitive domain
(C) Connative domain
(D) Psychomotor domain
Answer: A

Q24. "Education is the manifestation of perfection already in man" was stated by
(A) M. K. Gandhi
(B) R. N. Tagore
(C) Swami Vivekanand
(D) Sri Aurobindo

Answer: C
Q25. Which of the following is not a prescribed level of teaching?
(A) Memory
(B) Understanding
(C) Reflective
(D) Differentiation

Answer: D

## Q26. The core elements of dissertation are

(A) Introduction; Data Collection; Data Analysis; Conclusions and Recommendations
(B) Executive Summary; Literature review; Data gathered; Conclusions;

Bibliography
(C) Research Plan; Research Data; Analysis; References
(D) Introduction; Literature Review; Research Methodology; Results;

Discussion and Conclusion

## Answer:

## Q27. What is a Research Design?

(A) A way of conducting research that is not grounded in theory.
(B) The choice between using qualitative or quantitative methods.
(C) The style in which you present your research findings e.g. a graph.
(D) A framework for every stage of the collection and analysis of data.

Answer: D
Q28. "Sampling Cases" means
(A) Sampling using a sampling frame
(B) Identifying people who are suitable for research
(C) Literally the researcher's brief case
(D) Sampling of people, newspapers, television programmes etc.

Answer: D

Q29. The frequency distribution of a research data which is symme trical in shape similar to a normal distribution but center peak is much higher, is
(A) Skewed
(B) Mesokurtic
(C) Leptokurtic
(D) Platykurtic

Answer: C

Q30. When planning to do a social research, it is better to
(A) Approach the topic with an open mind
(B) Do a pilot study before getting stuck into it
(C) Be familiar with literature on the topic
(D) Forget about theory because this is a very practical

Answer: A

Q31. When academicians are called to deliver lecture or presentations to an audience on certain topics or a set of topics of educational nature, it is called
(A) Training Program
(B) Seminar
(C) Workshop
(D) Symposium

## Answer: B

Q32. Media is known as
(A) First Estate
(B) Second Estate
(C) Third Estate
(D) Fourth Estate

Answer: D

Q33. The mode of communication that involves a single source transmitting information to a large number of receivers simultaneously, is called
(A) Group Communication
(B) Mass Communication
(C) Intrapersonal Communication
(D) Interpersonal Communication

Answer: B

Q34. A smart classroom is a teaching space which has
(i) Smart portion with a touch panel control system.
(ii) PC/Laptop connection and DVD/VCR player.
(iii) Document camera and specialized software
(iv) Projector and screen

Select the correct answer from the codes given below:
(A) (i) and (ii) only
(B) (ii) and (iv) only
(C) (i), (ii) and (iii) only
(D) (i), (ii), (iii) and (iv)

Answer: B
Q35. The term "Yellow Journalism" refers to
(A) Sensational news about terrorism and violence
(B) Sensationalism and exaggeration to attract readers / viewers.
(C) Sensational news about arts and culture.
(D) Sensational news prints in yellow paper.

Answer: B

Q36. In the classroom, the teacher sends the message either as
words or images. The students are really
(A) Encoders
(C) Agitators

Answer: B
(B) Decoders
(D) Propagators

Q37. The next term in the series: $\mathrm{AB}, \mathrm{ED}, \mathrm{IH}, \mathrm{NM}$, - is
(A) TS
(B) ST
(C) TU
(D) SU

Answer: A
Q38. If STREAMERS is coded as UVTGALDQR, then KNOWLEDGE will be coded as
(A) MQPYLCDFD
(B) MPQYLDCFD
(C) PMYQLDFCD
(D) YMQPLDDFC

Answer: B

Q39. A is brother of $B . B$ is the brother of $C . C$ is the husband of $D . E$ is the father of $A$. $D$ is related to $E$ as
(A) Daughter
(B) Daughter-in-law
(C) Sister-in-law
(D) Sister

Answer: B

Q40. Two numbers are in the ration 3:5. If 9 is subtracted from the numbers, the ratio becomes 12:23. The numbers are
(A) 30,50
(B) 36,60
(C) 33,55
(D) 42,70

Answer: C
Q41. The mean of the ages of father and his son is 27 years. After 18 years, father will be twice as old as his son. Their present ages are
(A) 42,12
(B) 40,14
(C) 30, 24
(D) 36,18

Answer: A

Q42. Digital Empowerment means
(i) Universal digit literacy
(ii) Universal access to all digital resources
(iii) Collaborative digital platform for participative governance.
(iv) Probability of all entitlements for individuals through cloud.

Choose the correct answer from the codes given below:
(A) (i) and (ii) only
(B) (ii) and (iii) only
(C) (i), (ii) and (iii) only
(D) (i), (ii), (iii) and (iv)

Answer: D
Q43. The next term in the series: $2,7,28,63,126,-$ is
(A) 215
(B) 245
(C) 276
(D) 296

Answer: A

## Read the following passage carefully and answer questions 44 to 48 :

The literary distaste for politics, however, seems to be focused not so much on the largely murky practice of politics in itself as a subject of literary representation but rather more on how it is often depicted in literature, i.e., on the very politics of such representation. A political novel often turns out to be not merely a novel about politics but a novel with a politics of its own, for it seeks not merely to show us how things are but has fairly definite ideas about how things should be, and precisely what one should think and do in order to make things move in that desired direction. In short, it seeks to convert and enlist the reader to a particular cause or ideology; it often is (in an only too familiar phrase) not literature but propaganda. This is said to violate the very spirit of literature which is to broaden our understanding of the world and the range of our sympathies rather than to narrow them down through partisan commitment. As John Keats said, 'We hate poetry that has a palpable design upon us'.

Another reason why politics does not seem amenable to the highest kind of literary representation seems to arise from the fact that politics by its very nature is constituted of ideas and ideologies. If political situations do not lend themselves to happy literary treatment, political ideas present perhaps an even greater problem in this regard. Literature, it is argued, is about human
experiences rather than about intellectual abstractions; it deals in what is called the 'felt reality' of human flesh and blood, and in sap and savour. (rasa) rather than in and and lifeless ideas. In an extensive discussion of the matter in her book Ideas and the Novel, the American novelist Mary McCarthy observed that 'ideas are still today felt to be unsightly in the novel' though that was not so in 'former days', i.e., in the 18th and 19th centuries. Her formulation of the precise nature of the incompatibility between ideas on the one hand and the novel on the other betrays perhaps a divided conscience in the matter and a sense of dilemma shared by many writers and readers : 'An idea cannot have loose ends, but a novel, I almost think, needs them. Nevertheless, there is enough in common for the novelists to feel... the attraction of ideas while taking up arms against them - most often with weapons of mockery.'

## Q44. The constructs of politics by its nature is

(A) Prevalent political situation
(B) Ideas and Ideologies
(C) Political propaganda
(D) Understanding of human nature

Answer: C

## Q45. Literature deals with

(A) Human experiences in politics
(B) Intellectual abstractions
(C) Dry and empty ideas
(D) Felt reality of human life

## Answer: D

Q46. The observation of the novelist, May McCarthy reveals
(A) Unseen felt ideas of today in the novel
(B) Dichotomy of conscience on political ideas and novels
(C) Compatibility between idea and novel
(D) Endless idea and novels

Answer: B
Q47. According to the passage, a political novel often turns out to be a
(A) Literary distaste for politics
(B) Literary representation of politics
(C) Novels with its own politics
(D) Depiction of murky practice of politics

Answer: C
Q48. A political novel reveals
(A) Reality of the tings
(B) Writer's perception
(C) Particular ideology of the readers
(D) The spirit of literature

Answer: B

Q49. Warrior is related to sword, carpenter is related to saw, farmer is related to plough. In the same way, the author is related to
(B) Fame
(C) Reader
(D) Pen

Answer: D
Q50. Given below is a diagram of three circles $A, B$ and $C$ overlapping each other? The circle $A$ represents the class of honest people, the circle $B$ represent the class of sincere people and circle $C$ represents the class of politicians. $p, q, r, s, U, X, Y$ represent different regions. Select the code that represents the region indicating the class of honest politicians who are not sincere.
(A) X
(B) q
(C) p
(D) s
Answer: D

Q51. "A man ought no more to value himself for being wiser than a woman if he owes his advantage to a better education, than he ought to boast of his courage for beating a man when his hands were tied." The above passage is an instance of
(A) Deductive argument
(B) Hypothetical argument
(C) Analogical argument
(D) Factual argument
Answer: C

Q52. By which of the following proposition, the proposition "wise men are hardly afraid of death" is contradicted?
(A) Some wise men are afraid of death.
(B) All wise men are afraid of death.
(C) No wise men is afraid of death.
(D) Some wise men are not afraid of death.

Answer: B

Q53. When in a group of propositions, one proposition is claimed to follow from the others, that group of propositions is called
(A) An argument
(B) A valid argument
(C) An explanation
(D) An invalid argument

## Answer: A

Q54. Namita and Samita are brilliant and studious. Anita and karabi are obedient and irregular. Babita andNamita are irregular but brilliant. Samita and Kabita are regular and obedient. Who among them is/are brilliant, obedient, regular and studious?
(A) Samita alone
(B) Namita and Samita
(C) Kabita alone
(D) Anita alone

Answer: A

For a county CO 2 emissions (million metric tons) from various sectors are given in the following table. Answer the questions ( 55 to 60) base on the data given

| CO $_{2}$ emissions (million metric tons) |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Sector | Power | Industry | Commercial | Agriculture | Domestic | Year |  |  |  |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
| $\mathbf{2 0 0 5}$ | 500 | 200 | 150 |
| 80 | 100 |  |  |
| $\mathbf{2 0 0 6}$ | 600 | 300 | 200 |
| 90 | 110 |  |  |
| $\mathbf{2 0 0 7}$ | 650 | 320 | 250 |
| 100 | 120 |  |  |
| $\mathbf{2 0 0 8}$ | 700 | 400 | 300 |
| $\mathbf{2 0 0 9}$ | 800 | 450 | 320 |

Q55. By what percentage (\%), the total emissions of CO2 have increased from 2005 to 2009?
(A) $\sim 89.32 \%$
(B) $\sim 57.62 \%$
(C) $\sim 40.32 \%$
(D) $\sim 113.12 \%$

Answer: A

Q56. What is the average annual growth rate of $\mathbf{C O 2}$ emission in power sector?
(A) $\sim 12.57 \%$
(B) ~16.87\%
(C) $\sim 30.81 \%$
(D) $\sim 50.25 \%$

Answer: A

Q57. What is the percentage contribution of power sector to total CO2 emission in the year 2008?
(A) $\sim 30.82 \%$
(B) $\sim 41.18 \%$
(C) $\sim 51.38 \%$
(D) $\sim 60.25 \%$

Answer: B
Q58. In which year, the contribution (\%) of industry to total sectoral CO2 emission was minimum?
(A) 2005
(B) 2006
(C) 2007
(D) 2008

Answer: A

Q59. What is the percentage (\%) growth of CO2 emission from power sector during 2005 to 2009 ?
(A) 60
(B) 50
(C) 40
(D) 80

Answer: A

Q60. Which sector has recorded maximum growth in CO2 emission during 2005 to 2009?
(A) Power
(B) Industry
(C) Commercial
(D) Agriculture

Answer: D

## 22. Paper - I June - 2015

Q1. Which of the following represents one billion characters?
(A) Terabyte
(B) Kilobyte
(C) Megabyte
(D) Gigabyte

Answer: D
Explanation:
One million $=1,000,000$
one billion $=1,000,000,000=1000^{3}$
1 byte may hold 1 character
1000 bytes $=1$ kilobyte
$1000^{2}$ bytes $=1$ megabyte
$1000^{3}$ bytes $=1$ gigabyte
Q2. The factors which are most important in determining the impact of anthropogenic activities on environment are:
(A) Population, forest cover and land available per person
(B) Population, affluence per person, land available per person
(C) Population, affluence per person and the technology used for exploiting resources
(D) Atmospheric conditions, population and forest cover

Answer: C
Q3. Which one of the following represents the binary equivalent of the decimal number 25 ?
(A) 11011
(B) 10101
(C) 01101
(D) 11001

Answer: D
Q4. The University Grants Commission was established with which of the following aims?
(a) Promotion of research and development in higher education
(b) Identifying and sustaining institutions of potential learning
(c) Capacity building of teachers
(d) Providing, autonomy to each and every higher educational institution in India
Select the correct answer from the codes given below:
(A) (a), (b) and (d)
(B) (a), (b), (c) and (d)
(C) (a), (b) and (c)
(D) (b), (c) and (d)

Answer: C
Q5. The session of the parliament is summoned by:
(A) The Speaker of the Lok Sabha and the Chairman of the Rajya Sabha
(B) The President
(C) The Prime Minister
(D) The Speaker of the Lok Sabha

Answer: B

Q6. India's contribution to total global carbon dioxide emissions is about:
(A) $\sim 15 \%$
(B) $\sim 3 \%$
(C) $\sim 6 \%$
(D) $\sim 10 \%$

Answer: C
Q7. In which of the countries per capita use of water is maximum?
(A) India
(B) USA
(C) European Union
(D) China

Answer: C

Q8. Encoding or scrambling data for transmission across a network is known as:
(A) Decryption
(B) Protection
(C) Detection
(D) Encryption

Answer: D
Q9. Civil Service Day is celebrated in India on:
(A) 7th July
(B) 21 st April
(C) 24th April
(D) 21st June

Answer: B
Q10. The South Asia University is situated in the city of:
(A) Kathmandu
(B) Colombo
(C) Dhaka
(D) New Delhi
Answer: D

Q11. Which is an instant messenger that is used for chatting?
(A) Google Talk
(B) AltaVista
(C) MAC
(D) Microsoft
Office
Answer: A

Q12. The Gross Enrolment Ratio (GER) in institutions of higher education in India at present (2015) is about:
(A) 23 percent
(B) 8 percent
(C) 12 percent
(D) 19 percent

Answer: D
Q13. Two earthquakes $A$ and $B$ happen to be of magnitude 5 and 6 respectively on Richter Scale. The ratio of the energies released $\mathrm{E}_{\mathrm{B}} / \mathrm{E}_{\mathrm{A}}$ will be approximately:
(A) $\sim 64$
(B) $\sim 8$
(C) $\sim 16$
(D) $\sim 32$

Answer: D
Q14. Which of the following is not an output device?
(A) Keyboard
(B) Printer
(C) Speaker
(D) Monitor

Answer: A
Q15. Which of the following is not open source software?
(A) Apache HTTP server
(B) Internet explorer
(C) Fedora Linux
(D) Open office

## Answer: B

Q16. In the recently launched Air Quality Index in India, which of the following pollutants is not included?
(A) Chlorofluorocarbons
(C) Fine particulate matter

Answer: A
(B) Carbon monoxide
(D) Ozone

Q17. The total number of central universities in India in April 2015 was:
(A) 43
(B) 08
(C) 14
(D) 27

Answer: A

Q18. Which of the following combinations represent renewable natural resources?
(A) Oil, forests and tides
(B) Fertile soil, fresh water and natural gas
(C) Clean air, phosphates and biological diversity
(D) Fishes, fertile soil and fresh water

Answer: D
Q19. Which of the following factors does not impact teaching?
(A) Learning through experience
(B) Teacher's knowledge
(C) Class room activities that encourage learning
(D) Socio-economic background of teachers and students

Answer: D
Q20. Which of the following steps are required to design a questionnaire?
(a) Writing primary and secondary aims of the study.
(b) Review of the current literature.
(c) Prepare a draft of questionnaire.
(d) Revision of the draft.

Select the correct answer from the codes given below:
(A) (a), (b), (c) and (d)
(B) (a), (b) and (c)
(C) (a), (c) and (d)
(D) (b), (c) and (d)

Answer: A
Q21. Which of the following is the highest level of cognitive ability?
(A) Evaluating
(B) Knowing
(C) Understanding
(D) Analysing

Answer: A

Q22. Achievement tests are commonly used for the purpose of:
(A) Assessing the amount of learning after teaching
(B) Making selections for a specific job
(C) Selecting candidates for a course
(D) Identifying strengths and weaknesses of learners

Answer: A
Q23. The conclusions/findings of which type of research cannot be generalized to other situations?
(A) Causal Comparative Research
(B) Historical Research
(C) Descriptive Research
(D) Experimental Research
Answer: B

Q24. Techniques used by a teacher to teach include:
(a) Lecture
(b) Interactive lecture
(c) Group work
(d) Self study

Select the correct answer from the codes given below:
(A) (a), (b) and (d)
(B) (a), (b) and (c)
(C) (a), (b), (c) and (d)
(D) (b), (c) and (d)

Answer: B

## Q25. A good thesis writing should involve:

(a) reduction of punctuation and grammatical errors to a minimum.
(b) careful checking of references.
(c) consistency in the way the thesis is written.
(d) a clear and well written abstract.

Select the correct answer from the codes given below:
(A) (b), (c) and (d)
(B) (a), (b), (c) and (d)
(C) (a), (b) and (c)
(D) (a), (b) and (d)

Answer: B
Q26. Which of the following statements regarding the meaning of research are correct?
(a) Research refers to a series of systematic activity or activities undertaken to find out the solution of a problem.
(b) It is a systematic, logical and an unbiased process wherein verification of hypothesis, data analysis, interpretation and formation of principles can be done.
(c) It is an intellectual enquiry or quest towards truth.
(d) It leads to enhancement of knowledge.

Select the correct answer from the codes given below:
(A) (a), (b), (c) and (d)
(B) (a), (b) and (c)
(C) (b), (c) and (d)
(D) (a), (c) and (d)

Answer: A
Q27. Jean Piaget gave a theory of cognitive development of humans on the basis of his:
(A) Evaluation Research
(B) Fundamental Research
(C) Applied Research
(D) Action Research
Answer: B

Q28. "Male and female students perform equally well in a numerical aptitude test." This statement indicates a:
(A) statistical hypothesis
(B) research hypothesis
(C) null hypothesis
(D) directional hypothesis

Answer: C
Q29. Which of the following statements about teaching aids are correct?
(a) They help in retaining concepts for longer duration.
(b) They help students learn better.
(c) They make teaching learning process interesting.
(d) They enhance rote learning.

Select the correct answer from the codes given below:
(A) (a), (b) and (d)
(B) (a), (b), (c) and (d)
(C) (a), (b) and (c)
(D) (b), (c) and (d)

## Answer: C

## Q30. A good teacher is one who:

(A) inspires students to learn
(B) gives useful information
(C) explains concepts and principles
(D) gives Printed notes to students

## Answer: A

## Read the following passage carefully and answer questions 31 to 36:

Story telling is not in our genes. Neither it is an evolutionary history. It is the essence of what makes us Human.
Human beings progress by telling stories. One event can result in a great variety of stories being told about it. Sometimes those stories differ greatly. Which stories are picked up and repeated and which ones are dropped and forgotten often determines how we progress. Our history, knowledge and understanding are all the collections of the few stories that survive. This includes the stories that we tell each other about the future. And how the future will turn out depends partly, possibly largely, on which stories we collectively choose to believe.
Some stories are designed to spread fear and concern. This is because some story-tellers feel that there is a need to raise some tensions. Some stories are frightening, they are like totemic warnings: "Fail to act now and we are all doomed." Then there are stories that indicate that all will be fine so long as we leave everything upto a few especially able adults. Currently, this trend is being led by those who call themselves "rational optimists". They tend to claim that it is human nature to compete and to succeed and also to profit at the expense of others. The rational optimists however, do not realize how humanity has progressed overtime through amiable social networks and how large groups work in less selfishness and in the process accommodate rich and
poor, high and low alike. This aspect in story-telling is considered by the 'Practical Possibles', who sit between those who say all is fine and cheerful and be individualistic in your approach to a successful future, and those who ordain pessimism and fear that we are doomed.
What the future holds for us is which stories we hold on to and how we act on them.

## Q31. Rational optimists:

(a) Look for opportunities.
(b) Are sensible and cheerful.
(c) Are selfishly driven.

Identify the correct answer from the codes given below:
(A) (b) and (c) only
(B) (a), (b) and (c)
(C) (a) only
(D) (a) and (b) only

Answer: B

Q32. Humans become less selfish when:
(A) they work in solitude
(B) they work in large groups
(C) they listen to frightening stories
(D) they listen to cheerful stories

Answer: B
Q33. 'Practical Possibles' are the ones who:
(A) are cheerful and carefree
(B) follow

Midway Path
(C) are doom-mongers
(D) are self-centred

Answer: B

## Q34. Story telling is:

(A) the essence of what makes us human
(B) an art
(C) a science
(D) in our genes

Answer: A

## Q35. Our knowledge is a collection of:

(A) some important stories
(B) all stories that we have heard during our life-time
(C) some stories that we remember
(D) a few stories that survive

Answer: D

Q36. How the future will turn out to be, depends upon the stories?
(A) Designed to make prophecy
(B) We collectively choose to believe in
(C) Which are repeatedly narrated
(D) Designed to spread fear and tension

## Answer: B

Q37. At present a person is $\mathbf{4}$ times older than his son and is $\mathbf{3}$ years older than his wife. After 3 years the age of the son will be 15 years. The age of the person's wife after 5 years will be:
(A) 50
(B) 42
(C) 48
(D) 45

Answer: A

Q38. Among the following statements two are contradictory to each other. Select the correct code that represents them:
Statements:
(a) All poets are philosophers.
(b) Some poets are philosophers.
(c) Some poets are not philosophers.
(d) No philosopher is a poet.

Codes:
(A) (b) and (c)
(B) (a) and (b)
(C) (a) and (d)
(D) (a) and (c)

Answer: D

Q39. In an examination 10,000 students appeared. The result revealed the number of students who have:
passed in all five subjects $=5583$
passed in three subjects only $=1400$
passed in two subjects only $=1200$
passed in one subject only 735
failed in English only $=75$
failed in Physics only $=145$
failed in Chemistry only $=140$
failed in Mathematics only $=200$
failed in Bio-science only $=157$
The number of students passed in at least four subjects is:
(A) 7900
(B) 6300
(C) 6900
(D) 7300

Answer: B

Q40. Which of the following is not a principle of effective communication?
(A) Strategic use of grapevine
(B) Persuasive and convincing dialogue
(C) Participation of the audience
(D) One-way transfer of information

Answer: D

Q41. In communication, the language is:
(A) The non-verbal code
(B) The verbal code
(C) Intrapersonal
(D) The symbolic
code

Answer: B
Q42. When the purpose of a definition is to explain the use or to eliminate ambiguity the definition is called:
(A) Persuasive
(B) Stipulative
(C) Theoretical
(D) Lexical

Answer: D

Q43. A deductive argument is invalid if:
(A) Its premises and conclusions are all true
(B) Its premises and conclusions are all false
(C) Its premises are true but its conclusion is false
(D) Its premises are false but its conclusion is true

Answer: C

Q44. Which of the following are the characteristic features of communication?
(a) Communication involves exchange of ideas, facts and opinions.
(b) Communication involves both information and understanding.
(c) Communication is a continuous process.
(d) Communication is a circular process.

Select the correct answer from the codes given below:
(A) (a), (b), (c) and (d)
(B) (a), (b) and (c)
(C) (a), (b) and (d)
(D) (b), (c) and (d)

Answer: A

Q45. Which of the codes given below contains only the correct statements? Select the code:

## Statements:

(a) Venn diagram represents the arguments graphically.
(b) Venn diagram can enhance our understanding.
(c) Venn diagram may be called valid or invalid.
(d) Venn diagram is clear method of notation.

Codes:
(A) (a), (c) and (d)
(B) (a), (b) and (c)
(C) (a), (b) and (d)
(D) (b), (c) and (d)

Answer: C

Q46. The next term in the series is:
$2,5,9,19,37$, ?
(A) 80
(B) 73
(C) 75
(D) 78

Answer: C

Q47. Inductive reasoning is grounded on:
(A) Harmony of nature
(B) Integrity of nature
(C) Unity of nature
(D) Uniformity of nature

## Answer: D

Q48. If we want to seek new knowledge of facts about the world, we must rely on reason of the type:
(A) Physiological
(B) Inductive
(C) Deductive
(D) Demonstrative

Answer: B

Q49. Effectiveness of communication can be traced from which of the following?
(a) Attitude surveys
(b) Performance records
(c) Students attendance
(d) Selection of communication channel

Select the correct answer from the codes given below:
(A) (a), (b) and (d)
(B) (a), (b), (c) and (d)
(C) (a), (b) and (c)
(D) (b), (c) and (d)

Answer: C

Q50. One day Prakash left home and walked 10 km towards south, turned right and walked 5 km , turned right and walked 10 km and turned left and walked 10 km . How many km will he have to walk to reach his home straight?
(A) 30
(B) 10
(C) 20
(D) 15
Answer: D

Q51. A girl introduced a boy as the son of the daughter of the father of her uncle. The boy is related to the girl as:
(A) Son
(B) Brother
(C) Uncle
(D) Nephew

Answer: B

Q52. In certain code MATHURA is coded as JXQEROX. The code of HOTELS will be:
(A) ELIPQB
(B) LEQIBP
(C) ELQBIP
(D) LEBIQP

Answer: C

## Q53. The term 'grapevine' is also known as:

(A) Horizontal communication
(B) Downward communication
(C) Informal communication
(D) Upward communication

Answer: C

Q54. Assertion (A): Formal communication tends to be fast and flexible.
Reason (R): Formal communication is a systematic and orderly flow of information.
(A) (A) is false but, (R) is correct
(B) Both (A) and (R) are correct and (R) is correct explanation of (A)
(C) Both (A) and (R) are correct, but (R) is not correct explanation of (A)
(D) (A) is correct but, (R) is false

Answer: A
Question numbers 55 to 60 are based on the tabulated data given below: A company has 20 employees with their age (in years) and salary (in thousand rupees per month) mentioned against each of them:
$\left.\begin{array}{|c|c|c|c|c|r}\hline \text { S.No. } & \begin{array}{c}\text { Age } \\ \text { (in } \\ \text { years) }\end{array} & \begin{array}{c}\text { Salary } \\ \text { (in } \\ \text { thousand } \\ \text { rupees } \\ \text { per }\end{array} & \text { S.No. } & \begin{array}{c}\text { Age } \\ \text { (in } \\ \text { years) }\end{array} & \begin{array}{r}\text { Salar! } \\ \text { ( } \mathrm{month}\end{array} \\ \text { thous } \\ \text { rupe }\end{array}\right]$

| $\mathbf{7}$ | 42 | 50 | $\mathbf{1 7}$ | 34 | 35 |
| :---: | :---: | :---: | :---: | :---: | :--- |
| $\mathbf{8}$ | 51 | 55 | $\mathbf{1 8}$ | 49 | 50 |
| $\mathbf{9}$ | 34 | 25 | $\mathbf{1 9}$ | 43 | 45 |
| $\mathbf{1 0}$ | 41 | 30 | $\mathbf{2 0}$ | 45 | 50 |

Q55. What is the average salary (in thousand per month) in the age group 40-50 years?
(A) 36.5
(B) 35
(C) 42.5
(D) 40.5

Answer: C
Q56. What is the fraction of employees getting salary less than the average salary of all the employees?
(A) $47 \%$
(B) $45 \%$
(C) $50 \%$
(D) $55 \%$

Answer: D
Q57. What is the frequency (\%) in the class interval of 30-35 years?
(A) $35 \%$
(B) $20 \%$
(C) $25 \%$
(D) $30 \%$

Answer: A

Q58. What is the fraction (\%) of employees getting salary $\geq$ 40,000 per month?
(A) $32 \%$
(B) $45 \%$
(C) $50 \%$
(D) $35 \%$

Answer: B
Q59. What is the average age of the employees?
(A) 45.3 years
(B) 40.3 years
(C) 38.6 years
(D) 47.2 years

Answer: B

Q60. Classify the data of age of each employee in class interval of 5 years. Which class interval of 5 years has the maximum average

## salary?

(A) 50-55 years
(B) 35-40 years
(C) 40-45 years
(D) 45-50 years

Answer: A

## 23. Paper - I December - 2015

Q1. Greater the handicap of the students coming to the educational institutions, greater the demand on the:
(A) Family
(B) Society
(C) Teacher
(D) State

Answer: C

## Q2. What are the characteristics of Continuous and Comprehensive Evaluation?

(a) It increases the workload on students by taking multiple tests.
(b) It replaces marks with grades.
(c) It evaluates every aspect of the student.
(d) It helps in reducing examination phobia.

Select the correct answer from the codes given below:
(A) (a), (b), (c) and (d)
(B) (b) and (d)
(C) (a), (b) and (c)
(D) (b), (c) and (d)

Answer: D
Q3. Which of the following attributes denote great strengths of a teacher?
(a) Full-time active involvement in the institutional management
(b) Setting examples
(c) Willingness to put assumptions to the test
(d) Acknowledging mistakes

Select the correct answer from the codes given below:
(A) (a), (b) and (d)
(B) (b), (c) and (d)
(C) (a), (c) and (d)
(D) (a), (b), (c) and (d)

Answer: B

Q4. Which one of the following statements is correct in the context of multiple - choice type questions?
(A) They are more objective than true-false type questions.
(B) They are less objective than essay type questions.
(C) They are more subjective than short-answer type questions.
(D) They are more subjective than true-false type questions.

Answer: A
Q5. As Chairman of an independent commission on education, Jacques Delors report to UNESCO was titled
(A) International Commission on Education Report
(B) Millennium Development Report
(C) Learning : The Treasure Within
(D) World Declaration on Education for All

Answer: C

Q6. What are required for good teaching?
$\begin{array}{ll}\text { (a) Diagnosis } & \text { (b) Remedy } \\ \text { (c) Direction } & \text { (d) Feedback }\end{array}$
Select the correct answer from the codes given below:
(A) (a), (b), (c) and (d)
(B) (a) and (b)
(C) (b), (c) and (d)
(D) (c) and (d)

Answer: A

Q7. Which of the following statements is not true in the context of participatory research?
(A) It recognizes knowledge as power.
(B) It emphasises on people as experts.
(C) It is a collective process of enquiry.
(D) Its sole purpose is production of knowledge.

Answer: D

Q8. Which of the following statements is true in the context of the testing of a hypothesis?
(A) It is only the alternative hypothesis, that can be tested.
(B) It is only the null hypothesis, that can be tested.
(C) Both, the alternative and the null hypotheses can be tested.
(D) Both, the alternative and the null hypotheses cannot be tested.

## Answer: B

Q9. Which of the following are the basic rules of APA style of referencing format?
(a) Italicize titles of shorter works such as journal articles or essays
(b) Invert authors' names (last name first)
(c) Italicize titles of longer works such as books and journals
(d) Alphabetically index reference list

Select the correct answer from the codes given below:
(A) (a) and (b)
(B) (b), (c) and (d)
(C) (c) and (d)
(D) (a), (b), (c) and (d)

Answer: B
Q10. Which of the following are the characteristics of a seminar?
(a) It is a form of academic instruction.
(b) It involves questioning, discussion and debates.
(c) It involves large groups of individuals.
(d) It needs involvement of skilled persons.

Select the correct answer from the codes given below
(A) (b) and (c)
(B) (b) and (d)
(C) (b), (c) and (d)
(D) (a), (b) and (d)

Answer: D
Q11. A researcher is interested in studying the prospects of a particular political party in an urban area. What tool should he prefer for the study?
(A) Rating scale
(B) Interview
(C) Questionnaire
(D) Schedule

Answer: C

Q12. Ethical norms in research do not involve guidelines for:
(A) Thesis format
(B) Copyright
(C) Patenting policy
(D) Data sharing policies

Answer: A
Read the following passage carefully and answer question numbers 13 to
$17:$
I did that thing recently where you have to sign a big card - which is a horror unto itself, especially as the keeper of the Big Card was leaning over me at the time. Suddenly I was on the spot, a rabbit in the headlights, torn between doing a fun message or some sort of in-joke or a drawing. Instead overwhelmed by the myriad options available to me, I decided to just write "Good luck, best, Joel".

It was then that I realised, to my horror, that I had forgotten how to write. My entire existence is "tap letters into computer". My shopping lists are hidden in the notes function of my phone. If I need to remember something I send an email to myself. A pen is something I chew when I'm struggling to think. Paper is something I pile beneath my laptop to make it a more comfortable height for me to type on.

A poll of 1,000 teens by the stationers, Bic found that one in 10 don't own a pen, a third have never written a letter, and half of 13 to 19 years - old have never been forced to sit down and write a thank you letter. More than $80 \%$ have never written a love letter, $56 \%$ don't have letter paper at home. And a quarter have never known the unique torture of writing a birthday card. The most a teen ever has to use a pen is on an exam paper.

Bic, have you heard of mobile phones ? Have you heard of e-mail, facebook and
snap chatting? This is the future. Pens are dead. Paper is dead. Handwriting is a relic.
"Handwriting is one of the most creative outlets we have and should be given the same importance as other art forms such as sketching, painting or photography."

## Q13. When confronted with signing a big card, the author felt like "a rabbit in the headlight". What does this phrase mean?

(A) A state of confusion
(B) A state of pleasure
(C) A state of anxiety
(D) A state of pain
Answer: A

Q14. According to the author, which one is not the most creative outlet of pursuit?
(A) Handwriting
(B) Photography
(C) Sketching
(D) Reading

Answer: D
Q15. The entire existence of the author revolves round
(a) Computer
(b) Mobile phone
(c) Typewriter

Identify the correct answer from the codes given below
(A) (b) only
(B) (a) and (b) only
(C) (a), (b) and (c)
(D) (b) and (c) only

Answer: B

Q16. How many teens, as per the Bic survey, do not own a pen?
(A) 800
(B) 560
(C) 500
(D) 100

Answer: D

## Q17. What is the main concern of the author?

(A) That the teens use social networks for communication.
(B) That the teens use mobile phones.
(C) That the teens use computer.
(D) That the teens have forgotten the art of handwriting.

Answer: D
Q18. The main objectives of student evaluation of teachers are:
(a) To gather information about student weaknesses.
(b) To make teachers take teaching seriously.
(c) To help teachers adopt innovative methods of teaching.
(d) To identify the areas of further improvement in teacher traits.

Identify the correct answer from the codes given below:
(A) (a) and (b) only
(B) (b), (c) and (d) only
(C) (a), (b) and (c) only
(D) (a) only

## Answer: B

Q19. Using the central point of the classroom communication as the beginning of a dynamic pattern of ideas is referred to as:
(A) Systemisation
(B) Problem - orientation
(C) Idea protocol
(D) Mind mapping

Answer: D

Q20. Aspects of the voice, other than the speech are known as:
(A) Physical language
(B) Personal language
(C) Para language
(D) Delivery language

Answer: C

Q21. Every type of communication is affected by its:
(A) Reception
(B) Transmission
(C) Non-regulation
(D) Context

Answer: D

Q22. Attitudes, actions and appe arances in the context of classroom communication are considered as:
(A) Verbal
(B) Non-verbal
(C) Impersonal
(D) Irrational

Answer: B

Q23. Most often, the teacher - student communication is:
(A) Spurious
(B) Critical
(C) Utilitarian
(D) Confrontational

Answer: C

Q24. In a classroom, a communicator's trust level is determined by:
(A) the use of hyperbole
(B) the change of voice level
(C) the use of abstract concepts
(D) eye contact

Answer: D

Q25. The next term in the series
$2,5,10,17,26,37, ?$ is:
(A) 50
(B) 57
(C) 62
(D) 72

Answer: A

Q26. A group of 210 students appeared in some test. The mean of of students is found to be 60 . The mean of the remaining students is found to be 78. The mean of the whole group will be:
(A) 80
(B) 76
(C) 74
(D) 72

Answer: D
Q27. Anil after travelling $6 \mathbf{k m}$ towards East from his house realized that he has travelled in a wrong direction, lie turned and travelled 12 km towards West, turned right and travelled 8 km to reach his office. The straight distance of the office from his house is:
(A) 20 km
(B) 14 km
(C) 12 km
(D) 10 km
Answer: D

Q28. The next term in the series:
B2E, D5H, F12K, H27N, ? is:
(A) J561
(B) 162 Q
(C) Q62J
(D) J58Q

Answer: D

Q29. A party was held in which a grandmother, father, mother, four sons, their wives and one son and two daughters to each of the sons were present. The number of females present in the party is:
(A) 12
(B) 14
(C) 18
(D) 24

Answer: B

Q30. $P$ and $Q$ are brothers. $R$ and $S$ are sisters. The son of $P$ is brother of $S$. $Q$ is related to $R$ as:
(A) Son
(B) Brother
(C) Uncle
(D) Father

Answer: C
Q31. Consider the argument given below:
'Pre - employment testing of teachers is quite fair because doctors, architects and engineers who are now employed had to face such a testing.'
What type of argument it is?
(A) Deductive
(B) Analogical
(C) Psychological
(D) Biological

Answer: B
Q32. Among the following propositions two arc related in such a way that they can both be true although they cannot both be false. Which are those propositions? Select the correct code.
Propositions:
(a) Some priests are cunning.
(b) No priest is cunning.
(c) All priests are cunning.
(d) Some priests are not cunning.

Codes:
(A) (a) and (b)
(B) (c) and (d)
(C) (a) and (c)
(D) (a) and (d)

Answer: D
Q33. A Cluster of propositions with a structure that exhibits some inference is called
(A) An inference
(B) An argument
(C) An explanation
(D) A valid argument

Answer: B

Q34. Consider the following assertion (A) and reason (R) and select the correct code given below:
(A) : No man is perfect.
$(R)$ : Some men are not perfect.
(A) Both (A) and (R) are true but (R) does not provide sufficient reason for
(A).
(B) Both $(A)$ and $(R)$ are true and $(\mathrm{R})$ provides sufficient reason for $(\mathrm{A})$.
(C) (A) is true but (R) is false.
(D) (A) is false but (R) is true.

Answer: A

Q35. A definition that has a meaning that is delibe rately assigned to some symbol is called:
(A) Lexical
(B) Precising
(C) Stipulative
(D) Persuasive

Answer: C

Q36. If the proposition ' $N o$ men are honest' is taken to be false which of the following proposition/propositions can be claimed certainly to be true?

## Propositions:

(A) All men are honest
(B) Some men are
honest
(C) Some men are not honest
(D) No honest person is man

Answer: B

## Given below in the table is the decadal data of Population and Electrical

 Power Production of a country.| Year | Population <br> (million) | Electrical Power <br> Production <br> (GW)* |
| :---: | :---: | :---: |
| $\mathbf{1 9 5 1}$ | 20 | 10 |
| $\mathbf{1 9 6 1}$ | 21 | 20 |
| $\mathbf{1 9 7 1}$ | 24 | 25 |
| $\mathbf{1 9 8 1}$ | 27 | 40 |
| $\mathbf{1 9 9 1}$ | 30 | 50 |
| $\mathbf{2 0 0 1}$ | 32 | 80 |
| $\mathbf{2 0 1 1}$ | 35 | 100 |
|  |  | *1 GW $=1000$ <br> million watt |

Based on the above table, answer the questions from Sl. No. 37 to 42:
Q37. Which decade registered the maximum growth rate (\%) of population?
(A) 1961-71
(B) 1971-81
(B) 1991-2001
(D) 2001-2011

Answer: A

Q38. Average decadal growth rate (\%) of population is:
(A) $\sim 12.21 \%$
(B) ~9.82\%
(C) $\sim 6.73 \%$
(D) $\sim 5 \%$

Answer: B

Q39. Based on the average decadal growth rate, what will be the population in the year 2021?
(A) 40.34 million
(B) 38.49 million
(C) 37.28 million
(D) 36.62 million

Answer: B

Q40. In the year 1951, what was the power availability per person?
(A) 100 W
(B) 200 W
(C) 400 W
(D) 500 W

Answer: D

Q41. In which decade, the average power availability per person was maximum?
(A) 1981-1991
(B) 1991-2001
(C) 2001-2011
(D) 1971-1981

Answer: C

Q42. By what percentage (\%) the power production increased from 1951 o 2011?
(A) $100 \%$
(B) $300 \%$
(C) $600 \%$
(D) $900 \%$

## Answer: D

## Q43. NMEICT stands for:

(A) National Mission on Education through ICT
(B) National Mission on E-governance through ICT
(C) National Mission on E-commerce through ICT
(D) National Mission on E-learning through ICT

Answer: A

Q44. Which of the following is an instant messaging application?
(a) WhatsApp
(b) Google Talk
(c) Viber

Select the correct answer from the codes given below:
(A) (a) and (b) only
(B) (b) and (c) only
(C) (a) only
(D) (a), (b) and (c)

Answer: D

Q45. In a Computer a byte generally consists of:
(A) 4 bits
(B) 8 bits
(C) 16 bits
(D) 10 bits

Answer: B

Q46. Which of the following is not an input device?
(A) Microphone
(B) Keyboard
(C) Joystick
(D) Monitor

Answer: D

Q47. Which of the following is an open source software?
(A) MS Word
(B) Windows
(C) Mozilla Firefox
(D) Acrobat Reader

Answer: C

Q48. Which of the following enables us to send the same letter to different persons in MS Word?
(A) Mail join
(B) Mail copy
(C) Mail insert
(D) Mail merge

Answer: D

Q49. Inside rural homes, the source/sources of Nitrogen Oxide Pollution may be:
(a) Unvented gas stoves
(b) Wood stoves
(c) Kerosene heaters

Choose the correct code:
(A) (a) and (b) only
(B) (b) and (c) only
(C) (b) only
(D) (a), (b) and (c)

Answer: D

Q50. Which of the following pollutants can cause cancer in humans ?
(A) Pesticides
(B) Mercury
(C) Lead
(D) Ozone

Answer: A
Q51. Assertion (A): People population control measures do not necessarily help in checking environmental degradation.
Reason (R): The relationship between population growth and environmental degradation is rather complex.
Choose the correct answer from the following
(A) Both (A) and (R) are true and (R) is the correct explanation of (A).
(B) Both (A) and (R) are true but (R) is not the correct explanation of (A).
(C) (A) is true but (R) is false.
(D) (A) is false but (R) is true.

Answer: A
Q52. Which of the following phenomena is not a natural hazard?
(A) Wildfire
(B) Lightning
(C) Landslide
(D) Chemical contamination

Answer: D
Q53. As part of National Climate Change Policy, Indian
government is planning to raise the installed capacity of renewable energy by the year 2030 to
(A) 175 GW
(B) 200 GW
(C) 250 GW
(D) 350 GW

Answer: D
Q54. At present, in terms of per capita energy consumption ( $\mathrm{kWh} / \mathrm{ye}$ ar), identify the correct sequence.
(A) Brazil $>$ Russia $>$ China $>$ India
(B) Russia $>$ China $>$ India $>$ Brazil
(C) Russia $>$ China $>$ Brazil $>$ India
(D) China $>$ Russia $>$ Brazil $>$ India

Answer: C

Q55. Which of the following are the objectives of Rashtriya Uchchatar Shiksha Abhiyan (RUSA)?
(a) To improve the overall quality of state institutions.
(b) To ensure adequate availability of quality faculty.
(c) To create new institutions through upgradation of existing autonomous colleges.
(d) To downgrade universities with poor infrastructure into autonomous colleges.
Select the correct answer from the codes given below:
(A) (a), (b), (c) and (d)
(B) (a), (b) and (c)
(C) (a), (c) and (d)
(D) (a), (b) and (d)

Answer: B
Q56. The grounds on which discrimination in admission to educational institutions is constitutionally prohibited are
(a) Religion
(b) Sex
(c) Place of birth
(d) Nationality

Select the correct answer from the codes given below:
(A) (b), (c) and (d)
(B) (a), (b) and (c)
(C) (a), (b) and (d)
(D) (a), (b), (c) and (d)

## Answer: B

Q57. Which of the following statements are correct about Lok Sabha?
(a) The Constitution puts a limit on the size of the Lok Sabha.
(b) The size and shape of the Parliamentary Constituencies is determined by the Election Commission.
(c) First - past - the Post electoral system is followed.
(d) The Speaker of Lok Sabha does not have a casting vote in case of an equality of votes.
Select the correct answer from the codes given below:
(A) (a) and (c)
(B) (a), b) and (c)
(C) (a), (c) and (d)
(D) (a), (b), (c) and (d)

Answer: A

Q58. Public Order as an item in the Constitution figures in
(A) the Union List
(B) the State List
(C) the Concurrent List
(D) the Residuary Powers

Answer: B

Q59. The term of office of the Advocate General of a State is:
(A) 4 years
(B) 5 years
(C) 6 years or 65 years of age whichever is earlier
(D) not fixed

Answer: D

Q60. Which among the following States has the highest number of seats in the Lok Sabha?
(A) Maharashtra
(B) Rajasthan
(C) Tamil Nadu
(D) West Bengal

Answer: A

## 24. Paper - I July - 2016

Q1. Which of the following is the largest source of water pollution in major rivers of India?
(A) Untreated sewage
(B) Agriculture
run-off
$\begin{array}{ll}\text { (C) Unregulated small scale industries } & \text { (D) Religious practices }\end{array}$
Answer: A
Q2. Sustainable development goals have specific targets to be achieved by
(A) 2022
(B) 2030
(C) 2040
(D) 2050

Answer: B
Q3. Indian government's target of producing power from biomass by the year 2022, is
(A) 50 MW
(B) 25 MW
(C) 15 MW
(D) 10 MW

Answer: D

Q4. Assertion (A): Conserving our soil resources is critical to human survival.
Reason (R): Soil is home to many micro-organisms and contains minerals. Choose the correct code:
(A) Both (A) and (R) are correct and (R) is the correct explanation of (A).
(B) Both (A) and (R) are correct but (R) is not the correct explanation of (A).
(C) (A) is true and (R) is false.
(D) (A) is false and (R) is true.

Answer: A
Q5. World Meteorological Organization's (WMO) objective
has been to reduce the number of deaths due to hydro meteorological disasters over the decade 2010-2019 by (with reference to the decade 1994-2003)
(A) $25 \%$
(B) $50 \%$
(C) $75 \%$
(D) $80 \%$

Answer: B

Q6. is a type of memory circuitry that holds the computer's start-up routine.
(A) RIM (Read Initial Memory)
(B) RAM (Random Access
Memory)
(C) ROM (Read Only Memory)
(D) Cache Memory

Answer: C
Q7. An ASCII is a character-encoding scheme that is employed by personal computers in order to represent various characters, numbers and control keys that the computer user selects on the keyboard. ASCII is an acronym for
(A) American Standard Code for Information Interchange
(B) American Standard Code for Intelligent Information
(C) American Standard Code for Information Integrity
(D) American Standard Code for Isolated Information

## Answer: A

Q8. Identify the air pollutant in urban areas which irritates eyes and also respiratory tract of human beings.
(A) Particulate matter
(B) Oxides of nitrogen
(C) Surface ozone
(D) Carbon monoxide

Answer: C
Q9. Which of the following statements about the Indian political system is/are correct?
(a) The president is both Head of the State and Head of the Government.
(b) Parliament is Supreme.
(c) The Supreme Court is the guardian of the Constitution.
(d) The Directive Principles of State Policy are justiciable.

Select the correct answer from the codes given below:
(A) (a), (b), (c) and (d)
(B) (b), (c) and (d)
(C) (b) and (c)
(D) (c) only

Answer: C

Q10. Which of the following are the fundamental duties?
(a) To respect the National Flag.
(b) To protect and improve the natural environment.
(c) For a parent to provide opportunities for education to his/her child.
(d) To protect monuments and places of national importance.

Select the correct answer from the codes given:

## Codes:

(A) (a), (b) and (c)
(B) (a), (b) and (d)
(C) (a), (c) and (d)
(D) (a), (b), (c) and (d)

Answer: D

Q11. Which of the following statements are correct in respect of Niti Aayog?
(a) It is a constitutional body.
(b) It is a statutory body.
(c) It is neither a constitutional body nor a statutory body.
(d) It is a think-tank.

Select the correct answer from the codes given below:
(A) (a) and (d)
(B) (b) and (d)
(C) (c) and (d)
(D) (b), (c) and (d)

Answer: C
Q12. Which of the following core value among the institutions of higher education are promoted by the NAAC (National Assessment and Accreditation Council)?
(a) Contributing to national development.
(b) Fostering global competencies among the students.
(c) Inculcating a value system among students.
(d) Promoting the optimum utilization of the infrastructure.

Select the correct answer from the codes given below:
Codes:
(A) (b), (c) and (d)
(B) (a), (b) and (c)
(C) (a), (c) and (d)
(D) (a), (b), (c) and (d)

Answer: B

Q13. The best way for providing value education is through
(A) discussions on scriptural texts
(B) lecture/discourses on values
(C) seminars/symposia on values
(D) mentoring/reflective sessions
on values

Answer: B

Q14. The National Judicial Appointments Commission (NJAC) has been declared unconstitutional by
(A) The Supreme Court of India
(B) The High Court
(C) The High Court and the Supreme Court both
(D) The President of India

Answer: A
Q15. Which set of learner characteristics may be considered helpful in designing effective teaching-learning systems? Select the correct alternative from the codes given below:
(i) Prior experience of learners in respect of the subject.
(ii) Interpersonal relationships of learner's family friends.
(iii) Ability of the learners in respect of the subject.
(iv) Student's language background.
(v) Interest of students in following the prescribed dress code.
(vi) Motivational-orientation of the students.

Codes:
(A) (i), (ii), (iii) and (iv)
(B) (i), (iii), (iv) and (vi)
(C) (ii), (iii), (iv) and (v)
(D) (iii), (iv), (v) and (vi)

## Answer: B

Q16. A college level assistant professor has planned his/her lectures with an intent to develop cognitive dimensions of students centered on skills of analysis and synthesis. Below, given are two sets of items Set - I consisting of levels of cognitive interchange and Set -

II comprising basic requirements for promoting them. Match the two sets and indicate your answer by choosing the correct alternative from the code:

## Set - I

Set - II
(Levels of Cognitive Interchange)
(Basic requirements for promoting cognitive interchange)
a. Memory level and non-examples of a point. for discriminating examples
b. Understanding level during the presentations. important points made
c. Reflective level items of information.
iii. Asking the students to discuss various
iv. Critically analyzing the points to be made and discussed.
Codes:
a b c
(A) ii iv i
(B) iii iv ii
(C) ii i iv
(D) i ii iii

Answer: C
Q17. Match the items of the first set with that of the second set in respect of evaluation system. Choose the correct code: Set - I
Set - II
a. Formative evaluation cognitive aspects with regularity
b. Summative evaluation
a group and certain yardsticks
c. Continuous and comprehensive outcomesevaluation
d. Norm and criterion referenced

## Codes:

a b c d

| (A) iv | iii | i | ii |
| :--- | :--- | :--- | :--- |
| (B) i | ii | iii | iv |
| (C) iii | iv | ii | i |
| (D) i | iii |  | iv |
| ii |  |  |  |

Answer: A
Q18. Select the alternative which consists of positive factors contributing to effectiveness of teaching:

## List of factors:

(a) Teacher's knowledge of the subject.
(b) Teacher's socio-economic background.
(c) Communication skill of the teacher.
(d) Teacher's ability to please the students.
(e) Teacher's personal contact with students.
(f) Teacher's competence in managing and monitoring the classroom transactions.

## Codes:

(A) (b), (c) and (d)
(B) (c), (d) and (f)
(C) (b), (d) and (e)
(D) (a), (c) and (f)

Answer: D

## Q19. The use of teaching aids is justified on the grounds of

(A) Attracting student's attention in the class room.
(B) Minimizing indiscipline problems in the classroom.
(C) Optimizing learning outcomes of students.
(D) Effective engagement of students in learning tasks.

## Answer: D

Q20. Assertion (A): The purpose of higher education is to promote critical and creative thinking abilities among students.
Reason (R): These abilities ensure job placements.
Choose the correct answer from the following code:
(A) Both (A) and (R) are true and (R) is the correct explanation of (A).
(B) Both (A) and (R) are true but (R) is not the correct explanation of (A).
(C) (A) is true and (R) is false.
(D) (A) is false and (R) is true.

## Answer: C

Q21. In qualitative research paradigm, which of the following features may be conside red critical?
(A) Data collection with standardised research tools.
(B) Sampling design with probability sample techniques.
(C) Data collection with bottom-up empirical evidences.
(D) Data gathering to take with top-down systematic evidences.

Answer: C

Q22. From the following list of statements identify the set which has negative implications for 'research ethics' :
(i) A researcher critically looks at the findings of another research.
(ii) Related studies are cited without proper references.
(iii) Research findings are made the basis for policy making.
(iv) Conduct of practitioner is screened in terms of reported research evidences.
(v) A research study is replicated with a view to verify the evidences from other researches.
(vi) Both policy making and policy implementing processes are regulated in terms of preliminary studies.

## Codes:

(A) (i), (ii) and (iii)
(B) (ii), (iii) and (iv)
(C) (ii), (iv) and (vi)
(D) (i), (iii) and (v)

Answer: C
Q23. In a research on the effect of child-rearing practices on stress-proneness of children in competing school projects, the hypothesis formulated is that 'child rearing practices do influence stress-proneness'. At the data-analysis stage a null hypothesis is advanced to find out the tenability of research hypothesis. On the basis of the evidence available, the null hypothesis is rejected at 0.01 level of significance. What decision may be warranted in respect of the research hypothesis?
(A) The research hypothesis will also be rejected.
(B) The research hypothesis will be accepted.
(C) Both the research hypothesis and the null hypothesis will be rejected.
(D) No decision can be taken in respect of the research hypothesis.

## Answer: B

Q24. A research intends to explore the effect of possible factors for the organization of effective mid-day meal interventions. Which research method will be most appropriate for this study?
(A) Historical method
(B) Descriptive survey method
(C) Experimental method

Answer: D
(D) Ex-post-facto method

Q25. Which of the following is an initial mandatory requirement for pursuing research?
(A) Developing a research design
(B) Formulating a research question
(C) Deciding about the data analysis procedure
(D) Formulating a research hypothesis

Answer: B

Q26. The format of thesis writing is the same as in
(A) preparation of a research paper/article
(B) writing of seminar presentation
(C) a research dissertation
(D) presenting a workshop/conference paper

Answer: C

## Read the following passage carefully and answer question numbers from

 27 to 32 :In terms of labour, for decades the relatively low cost and high quality of Japanese workers conferred considerable competitive advantage across numerous durable goods and consumer-electronics industries (eg. Machinery, automobiles, televisions, radios). Then labour-based advantages shifted to South Korea, then to Malaysia, Mexico and other nations. Today, China appears to be capitalizing best on the basic of labour, Japanese firms still remain competitive in markets for such durable goods, electronics and other products, but the labour force is no longer sufficient for competitive advantage
over manufacturers in other industrializing nations. Such shifting of labourbased advantage is clearly not limited to manufacturing industries. Today a huge number of IT and service jobs are moving from Europe and North America to India, Singapore, and like countries with relatively well-educated, low-cost workforces possessing technical skills. However, as educational levels and technical skills continue to rise in other countries, India, Singapore and like nations enjoying labour-based competitive advantage today are likely to find such advantage cannot be sustained through emergence of new competitors.

In terms of capital, for centuries the days of gold coin and later even paper money restricted financial flows. Subsequently regional concentrations were formed where large banks, industries and markets coalesced. But today capital flows internationally at rapid speed. Global commerce no longer requires regional interactions among business players. Regional capital concentrations in places such as New York, London and Tokyo still persist, of course, but the capital concentrated there is no longer sufficient for competitive advantage over other capitalists distributed worldwide. Only if an organization is able to combine, integrate and apply its resources (eg. Land, labour, capital, IT) in an effective manner that is not readily imitable by competitors can such an organization enjoy competitive advantage sustainable overtime.

In a knowledge-based theory of the firm, this idea is extended to view organizational knowledge as resource with atleast the same level of power and importance as the traditional economic inputs. An organization with superior knowledge can achieve competitive advantage in markets that appreciate the application of such knowledge. Semiconductors, genetic engineering, pharmaceuticals, software, military warfare, and like knowledge-intensive competitive arenas provide both time-proven and current examples. Consider semiconductors (e. g. computer chips), which are made principally of sand and common metals, these ubiquitous and powerful electronics devices are designed within common office buildings, using commercially available tools, and fabricated within factories in many industrialized nations. Hence, land is not the key competitive recourse in the semiconductor industry.

## Q27. What is required to ensure competitive advantages in

specific markets?
(A) Access to capital
(B) Common office buildings
(C) Superior knowledge
(D) Common metals

Answer: C

## Q28. The passage also mentions about the trend of

(A) Global financial flow
(B) Absence of competition in manufacturing industry
(C) Regionalisation of capitalists
(D) Organizational incompatibility

Answer: A
Q29. What does the author lay stress on in the passage?
(A) International commerce
(B) Labour-Intensive industries
(C) Capital resource management
(D) Knowledge-driven competitive advantage

Answer: D
Q30. Which country enjoyed competitive advantages in automobile industry for decades?
(A) South Korea
(B) Japan
(C) Mexico
(D) Malaysia

Answer: B

Q31. Why labour-based competitive advantages of India and Singapore cannot be sustained in IT and service sectors?
(A) Due to diminishing levels of skill.
(B) Due to capital-intensive technology making inroads.
(C) Because of new competitors.
(D) Because of shifting of labour-based advantage in manufacturing industries.

Answer: C

Q32. How can an organization enjoy competitive advantage sustainable overtime?
(A) Through regional capital flows.
(B) Through regional interactions among business players.
(C) By making large banks, industries and markets coalesced.
(D) By effective use of various instrumentalities.

## Answer: D

Q33. The choice of communication partners is influenced by factors of
(A) Proximity, utility, loneliness
(B) Utility, secrecy, dissonance
(C) Secrecy, dissonance, deception
(D) Dissimilarity, dissonance, deviance

Answer: A

Q34. As a teacher, select the best option to ensure your effective presence in the classroom.
(A) Use of peer command
(B) Making
aggressive statements
(C) Adoption of well-established posture (D) Being authoritarian

Answer: C

Q35. Every communicator has to experience
(A) Manipulated emotions
(B) Anticipatory excitement
(C) The issue of homophiles
(D) Status dislocation

Answer: B

Q36. Imagine you are working in an educational institution where people are of equal status. Which method of communication is best suited and normally employed in such a context?
(A) Horizontal communication
(C) Corporate communication
(B) Vertical communication

Answer: A

Q37. Identify the important element a teacher has to take cognizance of while addressing students in a classroom.
(A) Avoidance of proximity
(B) Voice modulation
(C) Repetitive pause
(D) Fixed posture
Answer: B

Q38. What are the barriers to effective communication?
(A) Moralising, being judgemental and comments of consolation.
(B) Dialogue, summary and self-review.
(C) Use of simple words, cool reaction and defensive attitude.
(D) Personal statements, eye contact and simple narration.

## Answer: A

Q39. A person walks 10 m infront and 10 m to the right. Then every time turning to his left, he walks 5,15 and 15 m respectively. How far is he now from his starting point?
(A) 20 m
(B) 15 m
(C) 10 m
(D) 5 m

Answer: D

Q40. A is sister of $B$. F is daughter of G. C is mother of $B$. $D$ is father of $C$. $E$ is mother of $D$. $A$ is related to $D$ as
(A) Grand daughter
(B) Daughter
(C) Daughter-in-law
(D) Sister

Answer: A
Q41. In the series AB, EDC, FGHI, ......?......, OPQRST, the missing term is
(A) JKLMN
(B) JMKNL
(C) NMLKJ
(D) NMKLJ
Answer: C

Q42. Among the following propositions two are related in such a way that one is the denial of the other. Which are those propositions?
Select the correct code:
Propositions:
(a) All women are equal to men
(b) Some women are equal to men
(c) Some women are not equal to men
(d) No women are equal to men

Codes:
(A) (a) and (b)
(B) (a) and (d)
(C) (c) and (d)
(D) (a) and (c)

Answer: D

Q43. In certain code, SELECTION is coded as QCJCARGML. The code of AMERICANS will be
(A) YKCPGAYLQ
(B) BNFSJDBMR
(C) QLYAGPCKY
(D) YQKLCYPAG

Answer: A

Q44. In the series
3, 11, 23, 39, 59, $\qquad$ The next term will be
(A) 63
(B) 73
(C) 83
(D) 93

Answer: C

Q45. Two railway tickets from city $A$ and $B$ and three tickets from city A to C cost Rs.177. Three tickets from city A to B and two tickets from city A to C city Rs.173. The fare for city $B$ from city $A$ will be Rs.
(A) 25
(B) 27
(C) 30
(D) 33

Answer: D

Q46. Select the code, which is not correct in the context of deductive argument with two premises:
(A) An argument with one true premise, one false premise and a false conclusion may be valid.
(B) An argument with two true premises and a false conclusion may be valid.
(C) An argument with one true premise, one false premise and a true conclusion may be valid.
(D) An argument with two false premises and a false conclusion may be valid.

Answer: B

Q47. Given below two premise and four conclusions are drawn from them (taking singly or together). Select the code that states the
conclusions validly drawn.
Premises: (i) All religious persons are emotional.
(ii) Ram is a religious person.

Conclusions: (a) Ram is emotional.
(b) All emotional persons are religious.
(c) Ram is not a non-religious person.
(d) Some religious persons are not emotional.

Codes:
(A) (a), (b), (c) and (d)
(B) (a) only
(B) (a) and (c) only
(D) (b) and (c) only

Answer: C

Q48. If the proposition 'All thieves are poor' is false, which of the following propositions can be claimed certainly to be true?

## Propositions:

(A) Some thieves are poor.
(B) Some thieves are not poor.
(C) No thief is poor.
(D) No poor person is a thief.

Answer: B

Q49. Consider the following statement and select the correct code stating the nature of the argument involved in it:
To suppose that the earth is the only populated world in the infinite space is as absurd as to assert that in an entire field of millet only one grain will grow.
(A) Astronomical
(B) Anthropological
(C) Deductive
(D) Analogical

Answer: D

Q50. Select the code, which is not correct about Venn diagram:
(A) Venn diagram represents propositions as well as classes.
(B) It can provide clear method of notation.
(C) It can be either valid or invalid.
(D) It can provide the direct method of testing the validity.

Answer: C

The following table shows the percentage profit (\%) earned by two companies $A$ and $B$ during the years 2011-15. Answer questions 51-53 based on the data contained in the table:

| Year | Percentage <br> Profit(\%) <br> A | Percentage <br> Profit(\%) <br> B |
| :---: | :---: | :---: |
| 2011 | 20 | 30 |
| 2012 | 35 | 40 |
| 2013 | 45 | 35 |
| 2014 | 40 | 50 |
| 2015 | 25 | 35 |

Where, percent (\%) Profit $=($ Income-Expenditure $) \times 100 /$ Expenditure
Q51. If the total expenditure of the two companies was Rs. 9 lakh in the year 2012 and the expenditure of $A$ and $B$ were in the ratio2:1, then what was the income of the company $A$ in that year?
(A) Rs.9.2 lakh
(B) Rs.8.1 lakh
(C) Rs. 7.2 lakh
(D) Rs. 6.0 lakh

Answer: B
Q52. What is the average percentage profit earned by the company B?
(A) $35 \%$
(B) $42 \%$
(C) $38 \%$
(D) $40 \%$

Answer: C

Q53. In which year, the percentage profit earned by the company $B$ is less than that of company $A$ ?
(A) 2012
(B) 2013
(C) 2014
(D) 2015

Answer: B

The following table shows the number of people in different age groups
who responded to a survey about their favourite style of music. Use this information to answer the questions $54-56$, to the nearest whole percentage:

| Style of <br> Music | Number of people |  |  |
| :---: | :---: | :---: | :---: |
|  | (Age in <br> Years) <br> $\mathbf{1 5 - 2 0}$ | (Age in <br> Years) <br> $\mathbf{2 1 - 3 0}$ | (Age in <br> Years) <br> $\mathbf{3 1 +}$ |
| Classical | 6 | 4 | 17 |
| Pop | 7 | 5 | 5 |
| Rock | 6 | 12 | 14 |
| Jazz | 1 | 4 | 11 |
| Blues | 2 | 3 | 15 |
| Hip-Hop | 9 | 3 | 4 |
| Ambient | 2 | 2 | 2 |

Q54. Approximately what percentage of the total sample were aged 21-30?
(A) $31 \%$
(B) $23 \%$
(C) $25 \%$
(D) $14 \%$

Answer: C

Q55. Approximately what percentage of the total sample indicates that Hip-Hop is their favourite style of music?
(A) $6 \%$
(B) $8 \%$
(C) $14 \%$
(D) $12 \%$

Answer: D

Q56. What percentage of respondents aged 31+ indicated a favourite style other than classical music?
(A) $64 \%$
(B) $60 \%$
(C) $75 \%$
(D) $50 \%$

Answer: C

Q57. An unsolicited e-mail message sent to many recipient at once is $\mathbf{a}$
(A) Worm
(B) Virus
(C) Threat
(D) Spam

Answer: D

Q58. The statement "the study, design, development, implementation, support or management of computer-based information systems, particularly software applications and computer Hardware" refers to
(A) Information Technology (IT)
(B) Information and Collaborative Technology (ICT)
(C) Information and Data Technology (IDT)
(D) Artificial Intelligence (AI)

Answer: A

Q59. If the binary equivalent of the decimal number 48 is $\mathbf{1 1 0 0 0 0}$, then the binary equivalent of the decimal number 51 is given by
(A) 110011
(B) 110010
(C) 110001
(D) 110100

Answer: A

Q60. The process of copying files to a CD-ROM is known as
(A) Burning
(B) Zipping
(C) Digitizing
(D) Ripping

Answer: A

## 25. Paper-I August - 2016(Retest)

Q1. In a Ph.D. thesis which one is the correct sequence for showing scheme of Chapterisation?
(A) Survey of related studies, Introduction, Design of the study, DataAnalysis and interpretation, Conclusions and generalisations, suggested further study, References, Appendix
(B) Introduction, Design of study, Data Analysis and Interpretation, Generalizations, Conclusions and Survey of related studies and suggestions for further research, References and Appendix
(C) Introduction, Survey of related studies, Design of study, Datapresentation; analysis \& Interpretation, Formulation of generalization \& Conclusions, Suggestions for further research, References \& Appendix (D) Survey of related studies, References, Introduction, Design of study, Data analysis and interpretation, Conclusions and generalizations, Suggestions for further research, Appendix
Answer: C

## Q2. Which of the following is not the critical feature of qualitative research?

(A) Actual settings are the direct source of data.
(B) Data take the forms of words or pictures.
(C) Seeking to establish relationships among measured social facts.
(D) Researcher becomes immersed in the situation, present or past related to the phenomena.
Answer: C

## Q3. A detailed description of methodology of research is

## required in

(A) Thesis/Dissertation
(C) Seminar paper/Articles

Answer: A
(B) Symposium/Workshop
(D) Conference and Seminar Papers

## Q4. Research ethics has a direct connection more often with which stages of research ?

(A) Defining and delimiting the scope of research.
(B) Problem formulation and reporting of research findings.
(C) Defining the population and deciding the sampling technique for research.
(D) Deciding about statistical techniques and data analysis.

## Answer: B

## Read the following passage carefully and answer questions from 5 to 10:

Many aspects of the motion-picture industry and its constituent companies are dissimilar to those observable in advanced-technology industries and firms. For instance, company longevity does not represent a consistent concern across the two organisational contexts. In the advanced-technology company for example, one new-product innovation - which is expected to generate financial returns to the firm - is insufficient for the company to be successful.
Rather, a stream of new product innovations is required. By contrast with the independent production company of this case, each new film - which is expected to generate financial returns to the principals - is sufficient for the company to be successful. Any subsequent new films involving the firm's participants will be produced by a different independent company.
As another instance, people's learning is expected to have different contributors and beneficiaries across the two organizational contexts. In the advanced-technology company, for example, each new product innovation provides an opportunity for participants on the project team to learn and acquire experience, and this same company intends to retain such participants, hence, benefit from their increased experience on the next project. By contrast with the independent production company, each new film provides an opportunity for participants on the project team to learn and acquire this experience also, but this same company has little or no expectation of retaining such participants, and hence, benefitting from their increased experience in the next project.
Experience is paramount in the motion-picture industry. Generally, on film projects, budgets are very tight, and schedules are very demanding. People are hired largely based on their experience and are expected to perform well immediately when called to do so. There is negligible slack time or margin for
learning through trial and error, but experienced people learn exactly through trial and error. Because experience is valued so highly and film-production houses have such short time horizons, entry into the industry is very difficult for most people. Further, the role played by schools and colleges is minimal in this industry. Some skills and techniques can be learned and refined through formal education (e.g., acting schools, theatre, film degrees), but the majority come through direct experience. Mentoring plays an important role. True, the film business focuses heavily on exploitation over exploration. Yet success of the industry as a whole is critically dependent upon learning and exploration overtime.

## Q5. What is not a consistent concern across the two organisational contexts ?

(A) Dissimilarity
(B) Product package
(C) Financial return
(D) Company longevity

Answer: D
Q6. What will be sufficient for an independent production company to be successful?
(A) New product innovations
(B) Financial returns from each new film
(C) Active role by firm's participants
(D) Organisational context

Answer: B

Q7. What does an advanced-technology company expect from the learning experience of its participants?
(A) Benefit for the next project
(B) Opportunity for more learning
(C) Little expectation of retaining them
(D) Help in marketing the previous product

Answer: A

## Q8. What is not the expectation of an independent production company in the case of its participants?

(A) Absence from the next project.
(B) Retention for the next project.
(C) Participation in the current project.
(D) Use of opportunity to acquire experience.

## Answer: B

Q9. Why do film production houses value experience highly ?
(A) Because of the importance of trial and error methods.
(B) Because of the margin for learning.
(C) Because of short time horizons.
(D) Because it allows easy entry to everyone into the film world.

Answer: C

Q10. According to the author, what has been the focus of film business?
(A) Formal education
(B) Mentoring
(C) Exploitation
(D) Indirect experience

Answer: C
Q11. Internal and external factors that affect message reception by the students in the classroom are referred to as
(A) feedback
(B) fragmentation
(C) channelization
(D) noise

Answer: D
Q12. A teacher in a classroom has immediate control over
(A) the self, selected methods of communication and the message.
(B) the audience, the noise and the reception.
(C) the feedback, the technology and the audience experience.
(D) the communication channel, other communicators, and external factors.

Answer: A
Q13. What do communicated words carry in a classroom situation ?
(A) Inspiration, controversy and introspection
(B) Diversion, criticism and irrationality
(C) Insipidity, irrationality, and non-acceptance
(D) Power, structure and tradition

Answer: D

Q14. As a good classroom communicator, you are supposed to know your
(A) audience emotions
(B) silent cues
(C) artful pauses
(D) counter
arguments
Answer: C

Q15. Figure out the components of non-verbal communication in a classroom from the following :
(A) Facial expression, cultural space and seating arrangement
(B) Speed of utterance, feel good factor and acoustics
(C) High sound, physical ambience and teacher-learner distance
(D) Facial expression, kinesics and personal space

Answer: D

Q16. Which of the following are the basic factors of effective listening ?
(A) Opinionation, stare and glare and interruptions
(B) Aggressive questioning, continuous cues and frequent movement
(C) Me-too-ism, glancing sideways, and offering advice
(D) Acknowledgement of thoughts, reflection, and asking open-ended questions

Answer: D

Q17. In a particular code, HOSPITALS is coded as HSOLSAPTI. The code of BIOLOGICALS will be
(A) BLICOALIOSG
(B) BOLGICAILOS
(C) SBLAOILOBCG
(D) BSILOALCOIG

Answer: D

## Q18. In the series

$1,5,13,25,41, \ldots \ldots .$. , the next term is
(A) 59
(B) 63
(C) 61
(D) 68

## Answer: C

Q19. At present, a mother is 3 times older than her son. After 5 years, the sum of their ages will be $\mathbf{7 0}$ years. The age of the mother after 10 years will be
(A) 40
(B) 55
(C) 45
(D) 60

Answer: B

Q20. In the series : AYD, BVF, DRH, GMJ, ?, the next term is
(A) GLK
(B) HLM
(C) LHM
(D) KGL

Answer: D

Q21. $\quad C$ and $D$ are sisters. $A$ and $B$ are brothers. $E$ is son $o f A$ and brother of $D$. $B$ is related to $C$ as
(A) Brother
(B) Son
(C) Uncle
(D) Father-in-law

Answer: C

Q22. Anil played 8 cricket matches. The mean (average) of the runs was found to be $\mathbf{8 0}$. After playing four more matches, the mean of the runs of all the matches was found to be 70. The total runs made in the last four matches is
(A) 400
(B) 300
(C) 200
(D) 100
Answer: C

Q23. If two propositions are connected in such a way that they cannot both be false although they may both be true, then their relationship is called
(A) Contrary
(B) Subcontrary
(C) Contradictory
(D) Subalternation

Answer: B

Q24. Which one among the following is not a characteristic of a

## deductive type of argument?

(A) The conclusion follows from the premise/premises necessarily.
(B) The argument admits degree of complexity.
(C) The argument provides us knowledge about matters of fact.
(D) The argument must be either valid or invalid.

## Answer: C

Q25. Select the code which states the condition of an invalid deductive argument :
(A) All the premises are true but the conclusion is false.
(B) Some of the premises are true but the conclusion is false.
(C) All the premises are false and the conclusion is also false.
(D) All the premises are true and the conclusion is also true.

Answer: A

Q26. Given below are two premises, with four conclusions drawn from them (taking singly or together); which conclusions are validly drawn? Select the correct answer from the codes given below :
Premises: (i) All bats are mammals.
(ii) Birds are not bats.

Conclusions :
(a) Birds are not mammals.
(b) Bats are not birds.
(c) All mammals are bats.
(d) Some mammals are bats.

Codes :
(A) (a), (b) and (d)
(B) (b) and (d)
(C) (a) and (c)
(D) (b), (c) and (d)

Answer: B

Q27. When a definition implies a proposal to use the definiendum to mean what is meant by the definiens it is called
(A) Lexical definition
(C) Precising definition
(D) Persuasive definition

Answer: B
Q28. Select the code which is not correct :

An analogical argument is strengthened by
(A) increasing the number of entities.
(B) increasing the number of similar respects.
(C) reducing the claim made earlier stronger.
(D) making the conclusion stronger when premises remain unchanged.

Answer: D
Consider the following two tables (I and II) that show the percentage of students in each faculty at University and the number of foreign students in the Science faculty: These percentages have been rounded to the nearest whole number. There are a total of 1049 students in the science faculty: Study these tables I and II and answer the questions 29-31:

| I : Students <br> Facultywise |  |  | II : Foreign Students <br> in Science Faculty |  |
| :---: | :---: | :---: | :---: | :---: |
| Name of <br> Faculty | \% of <br> Students |  | Foreign <br> Students | Number of <br> Science <br> Students |
| Computing | 22 |  | American | 79 |
| Business | 14 |  | Australian | 4 |
| Science | 23 |  | African | 2 |
| Engineering | 9 |  | Chinese | 6 |
| Arts | 21 |  | European | 21 |
| Medicine | 5 |  |  |  |
| Law | 6 |  |  |  |

Q29. Approximately, what percentage of students in the Science faculty is that of foreign students ?
(A) $14 \%$
(B) $9 \%$
(C) $30 \%$
(D) $11 \%$

Answer: D

Q30. Approximately, how many students belong to the Engine ering faculty?
(A) 420
(B) 410
(C) 390
(D) 400

Answer: B
Q31. In case, there are 34 European medical students, then approximately, what is their percentage in the medicine faculty?
(A) 13\%
(B) $18 \%$
(C) $12 \%$
(D) $15 \%$

Answer: D
A college has a total of 800 MCA students, $80 \%$ of whom are in class MCA-III and remaining are equally divided between class MCA-I and class MCA-II. The proportion of female students and the proportion of vegetarian students in the college are indicated as under through the table. Answer questions 32 to 34 based on this information.

| Proportion of females and proportion <br> of vegetarians in each class |  |  |
| :---: | :---: | :---: |
| Class | Female (F) | Vegetarian <br> (V) |
| MCA- <br> I | 0.40 |  |
| MCA- <br> II | 0.45 | 0.50 |
| MCA- <br> III | 0.55 |  |
| Total | 0.525 | 0.53 |

For example, in the table above, 0.525 is the total proportion of female students and 0.53 is the total proportion of vegetarian students in the college.

Q32. What is the percentage of female students in class MCA-III ?
(A) 40
(B) 45
(C) 50
(D) 55

## Answer: D

Q33. What is the percentage of vegetarian students in class MCAI?
(A) 40
(B) 45
(C) 50
(D) 55

Answer: A

Q34. How many total non-vegetarian students are there in class MCA-I and class MCA-II ?
(A) 72
(B) 88
(C) 78
(D) 92

Answer: B

Q35. Which of the following statements regarding the features of Information and Communication Technology (ICT) is/are true ?
I. ICT are the main instruments for the creation of computer networks and the applications based on them.
II. ICT support the spread of information and knowledge, separating the content from the place where it belongs physically.
III. The digital and virtual nature of most of ICT products allow the expenditure for them to be maximized.
Codes :
(A) I and II only
(B) I and III only
(C) II and III only
(D) I, II and III
Answer: A

Q36. If one GigaByte is equal to $2^{30}$ Bytes of data storage, then
1024 TeraBytes is equal to $\qquad$ bits of data storage.
(A) $2^{50}$
(B) $2^{53}$
(C) $2^{40}$
(D) $2^{56}$

Answer: B

Q37. The software used to navigate through the web is known as
(A) Website
(B) Web Browser
(C) Internet
(D) World Wide Web

## Answer: B

Q38. With regard to e-mail, what does Bcc : mean ?
(A) Blind Computer Communication :- The users specified in the Bcc : field will get the e-mail and see the addresses in the to : and cc : fields.
(B) Blind Carbon Copy : - The users specified in the Bcc : field will get the email and see the addresses in the to : and cc : fields.
(C) Blind Computer Communication :- The users specified in the Bcc : field will get the e-mail but it will be an audio file because this is how blind people get e-mail.
(D) Blind Carbon Copy : The users specified in the Bcc : field will get the email but will not see the addresses in the to : and cc : fields.

## Answer: B

Q39. Random Access Memory (RAM), a form of computer storage, is a $\qquad$ memory.
(A) Non-volatile
(B) Volatile
(C) Permanent
(D) Secondary

Answer: B
Q40. In Computer Networking, HTTP is referred to as a stateless protocol as servers do not maintain any information about past client requests. HTTP is an acronym for
(A) Hyper Text Translation Protocol
(B) Hyper Text Transfer Protocol
(C) High TeraByte Transfer Protocol
(D) Hypervisor Test Translation Protocol

## Answer: B

Q41. The arsenic pollution in ground water in Bangladesh and parts of India is due to
(A) industrial waste
(B) thermal power plants
(C) natural sources
(D) agricultural practices

Answer: C
Q42. Among the following air pollutants which directly impacts
human health as well as climate?
(A) Soot
(C) Oxides of nitrogen

Answer: A
(B) Sulphur dioxide
(D) Chlorofluoro carbons

Q43. Assertion (A): The problems of environmental sustainability are difficult to resolve.
Reason (R): Our understanding how environment works and how different human choices affect environment is inadequate.
Choose the correct code:
(A) Both (A) and (R) are correct and (R) is the correct explanation of (A).
(B) Both (A) and (R) are correct, but (R) is not the correct explanation of (A).
(C) (A) is true and (R) is false.
(D) (A) is false and (R) is true.

Answer: A
Q44. The percentage share of electrical power from solar energy in the total electric power generation from all renewable energy sources sought to be achieved by Indian government by the year 2022, is
(A) ~57.1\%
(B) $\sim 65.5 \%$
(C) ~ 47.5\%
(D) ~ 75\%

Answer: A
Q45. As part of Intended Nationally Determined contributions, Indian government through additional forest and tree cover has resolved to create an additional carbon sink (in terms of carbon dioxide equivalent) by year 2030 to the extent of
(A) 3.5 to 4 billion tons
(B) 2.5 to 3 billion tons
(C) 1.5 to 2 billion tons
(D) 1 to 1.5 billion tons

Answer: B

Q46. Which of the following is a meteorological hazard ?
(A) Avalanche
(B) Coastal erosion
(C) Landslide
(D) Blizzard
Answer: D

Q47. Which of the following universities/institutes is ranked first in the India Rankings 2016 ?
(A) Jawaharlal Nehru University, New Delhi
(B) Central University, Hyderabad
(C) Indian Institute of Science, Bangalore
(D) Institute of Chemical Technology, Mumbai

Answer: C
Q48. Which of the following statements are correct about distance education in India ?
(a) It supplements formal education.
(b) It reduces the cost of education. +
(c) It replaces the formal education.
(d) It enhances access to education.

Select the correct answer from the codes given below :

## Codes :

(A) (a), (b), (c) and (d)
(B) (a), (c) and (d)
(C) (a), (b) and (d)
(D) (b), (c) and (d)

Answer: C

Q49. Which of the following are statutory bodies?
(a) Election Commission of India
(b) University Grants Commission (UGC)
(c) All India Council for Technical Education (AICTE)
(d) National Assessment and Accreditation Council (NAAC)

Select the correct answer from the codes given below :
Codes :
(A) (a), (b) and (c)
(B) (b), (c) and (d)
(C) (b) and (c)
(D) (b) and (d)

Answer: C

Q50. Which of the following statements are not correct in respect of Rajya Sabha?
(a) It has same powers as those of Lok Sabha.
(b) It can pass a vote of no-confidence against the Council of Ministers.
(c) It can amend a money bill.
(d) It can be dissolved during emergency.

Select the correct answer from the codes given below :

## Codes :

(A) (b) and (c)
(B) (b), (c) and (d)
(C) (a), (b) and (c)
(D) (a), (b), (c) and (d)

Answer: D

Q51. Which of the following statement(s) is/are correct about the powers of the Governor of a State?
(a) He has the power to dissolve the Legislative Assembly.
(b) He has the power to appoint judges of the State High Court.
(c) He has the power to grant pardon in case of death sentence.
(d) He has diplomatic powers.

Select the correct answer from the codes given below :
Codes :
(A) (a) only
(B) (a) and (b)
(C) (a), (b) and (d)
(D) (a), (b) and (c)

Answer: A
Q52. In which of the following cases, the principle of natural justice (Hear the other party) must be followed ?
(a) Dismissal of an employee
(b) Supersession of a municipality
(c) Threat to national security
(d) Disciplinary action against a student or an employee

Select the correct answer from the codes given below :
Codes :
(A) (a) and (b)
(B) (a) and (d)
(C) (a), (b) and (d)
(D) (a), (b), (c) and (d)

Answer: C
Q53. Which of the following set of statements reflects the basic characteristics of teaching ?
Select the correct alternative from the codes :
(i) Teaching is the same as training.
(ii) There is no difference between instruction and conditioning when we teach.
(iii) Teaching is related to learning.
(iv) Teaching is a 'task' word while learning is an 'achievement' word.
(v) Teaching means giving information.
(vi) One may teach without learning taking place.

Codes :
(A) (i), (ii) and (iii)
(B) (iii), (iv) and (vi)
(C) (ii), (iii) and (v)
(D) (i), (iv) and (vi)

Answer: B

## Q54. Which of the following factors affect teaching?

Choose the correct code to indicate your answer.
(i) Teacher's internal locus of control.
(ii) Learner-motivation.
(iii) Teacher's biographical data.
(iv) Teacher's self efficacy.
(v) Learner's interest in co-curricular activities.
(vi) Teacher's skill in managing and monitoring.
(vii) Teacher's knowledge of the subject including general knowledge.

## Codes :

(A) (i), (ii), (iv), (vi) and (vii) (i), (ii), (iii), (iv) and
(v)
(C) (iii), (iv), (v), (vi) and (vii) (D) (ii), (iii), (iv), (v)
and (vi)
Answer: A
Q55. Which combination of methods of teaching is likely to optimise learning ?
(A) Lecturing, discussions and seminar method
(B) Interactive discussions, planned lectures and PowerPoint based presentations
(C) Interactive lecture sessions followed by buzz sessions, brainstorming and projects
(D) Lecturing, demonstrations and PowerPoint based presentations Answer: C

Q56. Assertion (A): Teaching aids have to be considered as effective supplements to instruction.
Reason (R): They keep the students in good humour.
Choose the correct answer from the codes given below :
Codes :
(A) Both (A) and (R) are true and (R) is the correct explanation of (A).
(B) Both (A) and (R) are true, but (R) is not the correct explanation of (A).
(C) (A) is true, but (R) is false.
(D) (A) is false, but (R) is true.

Answer: B

Q57. The purpose of formative evaluation is to
(A) grade students' learning outcomes.
(B) accelerate students' learning performance.
(C) check students' performance graph.
(D) provide feedback to teacher effectiveness.

Answer: B
Q58. Which of the following learner characteristics are likely to influence the effectiveness of teaching aids and evaluation systems to ensure positive results?
(A) Learner's family background, age and habitation.
(B) Learner's parentage, socio-economic background and performance in learning of the concerned subject.
(C) Learner's stage of development, social background and personal interests.
(D) Learner's maturity level, academic perfor
mance level and motivational dispositions.
Answer: D
Q59. For advancing knowledge, the latest strategy used by mankind is
(A) consulting an authority (B) deductive reasoning
(C) scientific thinking
(D) inductive reasoning

Answer: C

Q60. There are two sets given below, Set-I consists of methods of research and Set-II indicates their procedural characteristics. Match the two sets and choose your answer from the codes given below :
Set - I
(Research method)
a. Experimental method situation
b. Expost facto method of meanings and their representations which people share.
c. Descriptive method in controlled conditions and measuring its effect on dependent variable.
d. Symbolic interactionism secondary sources of data.

## e. Action research

 the current status of phenomena.vi. Observing the effect on dependent variable and making probes into factors/variables which explain it.
vii. Exegetic analysis.

Codes :

| (A) i iii iv $v$ <br> (B) iii iv $v$ vi <br> (C) i ii iii iv <br> (D) iii vi $v$ ii <br> Answer: D |
| :---: |
|  |  |
|  |  |
|  |  |
|  |  |

## 26. Paper-I Jan-2017

Q1. Assertion (A): Sustainable development critical to well-being of human society.
Reason (R): Environmentally sound policies do not harm the environment or deplete the natural resources.
Choose the correct code:
(A) Both (A) and (R) are correct and (R) is the correct explanation of (A).
(B) Both (A) and (R) are correct, but (R) is not the correct explanation of (A).
(C) (A) is true and (R) is true
(D) (A) is false and (R) is true

Answer: B
Q2. The dominant source of pollution due to oxides of nitrogen (NOx) in urban areas is
(A) Road trAns:port
(B) Commercial Sector
(C) Energy use in industry
(D) Power plants

Answer: B

Q3. Which of the following is not a water-borne disease?
(A) Typhoid
(B) Hepatitis
(C) Cholera
(D) Dengue

Answer: D
Q4. Which of the following is a characteristic of Web2.90 applications?
(A) Multiple users schedule their time to use Web2.0 applications one by one. (B) Web2.0 applications are focused on the ability for people to collaborate and share information online.
(C) Web2.0 applications provide users with content rather than facilitating users to create it.
(D) Web2.0 applications use only static pages.

## Answer: B

Q5. With regard to a word processing software, the process of combining static information in a publication together with variable information in a data source to create one merged publication is called
(A) Electronic mail
(B) Data sourcing
(C) Mail merge
(D) Spam mail

Answer: C

Q6. DVD technology uses an optical media to store the digital data DVD is an acronym for
(A) Digital Vector Disc
(B) Digital Volume Disc
(C) Digital Versatile Disc
(D) Digital Visualization Disc

Answer: C

Q7. Which of the following are the demerits of globalization of higher education?
(a) Exposure to global curriculum
(b) Promotion of elitism in education
(c) Commodification of higher education
(d) Increase in the cost of education

Select the correct Answer from the codes given below
(A) (a) and (d)
(B) (a), (c) and (d)
(C) (b), (c) and (d)
(D) (a), (b), (c) and (d)

Answer: C

Q8. Which of the following statements are correct about deemed
universities?
(a) The Governor of the State is the chancellor of deemed universities.
(b) They can design their own syllabus and course work.
(c) They can frame their own guidelines regarding admission and fees.
(d) They can grant degrees.

Select the correct Answer from the codes given below
(A) (A), (B) and (C)
(B) (B), (C) and (D)
(C) (A), (C) and (D)
(D) (A), (B), (C) and (D)

Answer: B
Q9. India government's target for power production from small hydro projects by the year 2022 is
(A) 1 Giga-Watt
(B) 5 Giga-Watt
(C) 10 Giga-Watt
(D) 15 Giga-Watt

Answer: B
Q10. In which country, the recent international agreement on phasing out Hydro Fluoro Carbons (HFCs) was signed?
(A) Rwanda
(B) Morocco
(C) South Africa
(D) Algeria

Answer: A
Q11. Which of the following natural hazards is not hydrometeorological?
(A) Snow avalanche
(B) Sea erosion
(C) Tropical cyclone
(D) Tsunami

Answer: B
Q12. Instead of holding the office during the pleasure of the

President who among the following hold (s) office during good behavior?
(a) Governor of State
(b) Attorney General of India
(c) Judges of high court
(d) Administrator of Union Territories Select the correct Answer from the codes given below:
(A) (a) only
(B) (c) Only
(C) (a) and (c)
(D) (a), (b), (c) and (d)

Answer: B
Q13. The purpose of value education is best served by focusing on
(A) Cultural practices prevailing in the society.
(B) Norms of conduct laid down by a social group
(C) Concern for human values
(D) Religious and moral practices and instructions.

Answer: C
Q14. Which of the following statements are correct?
(a) Rajya Sabha is a permanent House which can be dissolved only during national emergency. (b) Rajya Sabha does not represent the local interests of the States.
(c) Members of the Rajya Sabha are not bound to vote at the dictates of the states they represent.
(d) No Union territory has a representative in the Rajya Sabha. Select the correct Answer from the codes given below
(A) (a) and (d)
(B) (b) and (c)
(C) (b), (c) and (d)
(D) (a), (b), (c) and (d)

Answer: B
Q15. Which of the following are not necessarily the immediate consequences of the proclamation of the President's Rule in a State?
(a) Dissolution of the State of Ministers in the State
(b) Removal of the Council of Ministers in the State.
(c) Takeover of the State administration by the Union Government
(d) Appointment of a new Chief Secretary Select the correct Answer from the codes given below
(A) (a) and (d)
(B) (a), (b) and (c)
(C) (a), (b), (c) and (d)
(D) (b) and (c)

Answer: A
Q16. In which teaching method learner's participation is made optimal and proactive?
(A) Discussion method
(B) Buzz session method
(C) Brainstorming session method
(D) Project method

Answer: A
Q17. One of the most powerful factors affecting teaching effectiveness is related to the
(A) Social system of the country
(B) Economic status of the society
(C) Prevailing political system
(D) Educational system

Answer: D
Q18. Assertion (A): Formative evaluation tends to accelerate the pace of learning. Reason (R): As against summative evaluation, formative evaluation is highly reliable.
Choose the correct Answer from the following code
(A) Both (A) and (R) are true and (R) is the correct explanation of (A).
(B) Both (A) and (R) are true, but (R) is not the correct explanation of (A).
(C) (A) is true, but (R) is false.
(D) (A) is false, but (R) is true

Answer: C
Q19. Which of the following set of statements represents
acceptable propositions in respect of teaching-learning relationships?
Choose the correct code to indicate your Answer.
(i) When students fail in a test, it is the teacher who fails.
(ii) Every teaching must aim at ensuring learning.
(iii) There can be teaching without learning taking place
(iv) There can be no learning without teaching.
(v) A teacher teaches but learns also Real learning implies rote learning
(A) (ii), (iii), (iv) and (v)
(B) (i), (ii), (iii) and (v)
(C) (iii), (iv), (v) and (vi)
(D) (i), (ii), (v) and (vi)

## Answer: B

Q20. Assertion (A): Learning is a life long process. Reason (R): Learning to be useful must be linked with life processes.
Choose the correct Answer from the following code
(A) Both (A) and (R) are true and (R) is the correct explanation of (A).
(B) Both (A) and (R) are true, but (R) is not the correct explanation of (A).
(C) (A) is true, but (R) is false
(D) (A) is false, but (R) is true.

Answer: B
Q21. Effectiveness of teaching has to be judged in terms of
(A) Course coverage
(B) Students' interest
(C) Learning outcomes of students
(D) Use of teaching aids in the classroom

Answer: C

Q22. Below are given two seat - research methods (Set-I) and data collection tools (Set-II). Match the two sets and indicate your Answer by selecting the correct code:
Set-I Set-II

A Experimental method
B Ex post-facto method
C Descriptive survey method

1 Using primary secondary sources
2 Questionnaire
3 Standardized tests

## D Historical method

4 Typical characteristics tests
Codes:
ABCD
(A) 2134
(B) 3421
(C) 2314
(D) 2431

Answer: B

Q23. The of 'Research ethics' may be considered pertinent at which stage of research?
(A) At the stage of problem formulation and its definition
(B) At the stage of defining the population of research
(C) At the stage of data collection and interpretation
(D) At the stage of reporting the findings.

Answer: D
Q24. In which of the following, reporting format is formally prescribed?
(A) Doctoral level thesis
(B) Conference of researchers
(C) Workshops and seminars
(D) Symposia

Answer: A
Q25. The principal of a school conducts an interview session of teachers and students with a view to explore the possibility of their enhanced participation in school programmers. This endeavor may be related to which type of research?
(A) Evaluation Research
(B) Fundamental Research
(C) Action Research
(D) Applied Research

## Answer: C

Q26. In doing action research what is the usual sequence of steps?
(A) Reflect, observe, plan, act
(B) Plan, act, observe, reflect
(C) Plan, reflect, observe, act
(D) Act, observe, plan, reflect

## Answer: B

Q27. Which sequence of research steps is logical in the list given below?
(A) Problem formulation, Analysis, Development of Research design, Hypothesis making, Collection of data, Arriving at generalizations and conclusions.
(B) Development of Research design, Hypothesis making, Problem formulation, Data analysis, Arriving at conclusions and data collection. (C) Problem formulation, Hypothesis making, Development of a Research design, Collection of a Data; Data analysis and formulation of generalizations and conclusions.
(D) Problem formulation, Deciding about the sample and data collection tools Formulation of hypothesis, Collection and interpretation of research evidence

## Answer: C

Passage: The last Great War, which nearly shook the foundations of the modern world had little impact on Indian Literature beyond aggravating the popular revulsions against violence and adding to growing disillusionment with the 'humane pretensions' of the Western World. This was eloquently voiced in Tagore's poems and his last testament, "Crisis in Civilization". The Indian intelligentsia was in a state of moral dilemma. On the one hand, it could not help but sympathize with the England's dogged courage in the hour of peril, with the RussiAns: fighting with their backs on the wall against ruthless Nazi hordes, and with the China groaning under the heel of Japanese militarism; on the other hand their own country was practically under the military occupation of their own soil and the Indian army under Subhas Bose was trying from the opposite camp to liberate their country. No creative impulse could issue from
such confusion of loyalties. One would imagine that the achievement of Indian independence in 1947, which came in the wake of the Allies victory and was followed by collapse of colonialism in the neighboring countries of South East Asia, would have released an upsurge of the creative energy. No doubt it did, but it was soon submerged in the great agony of partition with the inhuman slaughter of innocents and the uprooting of the millions of the people from their homeland followed by the martyrdom of Mahatma Gandhi. These tragedies along with Pakistan's Invasion of Kashmir and its later atrocities in Bangladesh, did indeed provoke a pregnant writing, particularly in the languages of the regions most affected Bengali, Hindi, Kashmiri, Punjabi, Sindhi and Urdu. Both poignant or passionate writing does not by itself make great literature. What reserves of enthusiasm and confidence served these disasters have been mainly absorbed in the task of national reconstruction and economic development. Great literature has always emerged out of chains of convulsions. Indian literature is richer today in terms of volume, range and variety than it ever was in past.

Q28. Identify the factor responsible for the submergence creative energy in India literature.
(A) Military occupation of one's own soil
(B) Resistance to colonial occupation
(C) Great agony of partition
(D) Victory of Allies

Answer: C
Q29. What passage has the message that
(A) Suspicion of other countries
(B) Continuance of rivalry
(C) Menace of war
(D) National reconstruction

Answer: D
Q30. The passage has the message that
(A) Disasters are inevitable
(B) Great literature emerges out of chains of convulsions
(C) Indian literature does not have a marked landscape
(D) Literature has no relation with war and independence.

Answer: B

Q31. What was the impact of the last great war on Indian literature?
(A) It had no impact
(B) It aggravated popular revulsion against violence
(C) It shook the foundations of literature
(D) It offered eloquent support to the Western World

Answer: B
Q32. What did Tagore articulate in his last testament?
(A) Offered support to Subhas Bose
(B) Exposed the humane pretensions of the Western World
(C) Expressed loyalty to England
(D) Encouraged the liberation of countries

Answer: B
Q33. What was the stance of Indian intelligentsia during the period of great war?
(A) Indifference to Russia's plight
(B) They favored Japanese militarism
(C) They prompted creativity out of confused loyalties
(D) They expressed sympathy for England's dogged courage.

Answer: D

## Q34. Expressive communication is driven by

(A) Passive aggression
(B) Encoder's personality characteristics
(C) External clues
(D) Encoder-decoder contract

Answer: B

Q35. Positive classroom communication leads to
(A) Coercion
(B) Submission
(C) Confrontation
(D) Persuasion

Answer: D
Q36. Classroom communication is the basis of
(A) Social identity
(B) External inanities
(C) Biased passivity
(D) Group aggression

Answer: A
Q37. Effective communication pre-supposes
(A) Non-alignment
(B) Domination
(C) Passivity
(D) Understanding

Answer: D
Q38. When verbal and non-verbal messages are contradictory, it is that most people believe in
(A) It determinate messages
(B) Verbal messages
(C) Non-verbal messages
(D) Aggressive messages

Answer: C

Q39. The typical feature of information-rich classroom lecture is in the nature of being
(A) Sedentary
(B) Staggered
(C) Factual
(D) Sectoral

Answer: C
Q40. Among the following, identify the continuous type of data:
(A) Number of languages a person speaks
(B) Number of children in a household
(C) Population of cities
(D) Weight of students in a class

Answer: D
Q41. Ali buys a glass, a pencil box and a cup and pays Rs. 21 to the shopkeeper. Rakesh buys a cup, two pencil boxes and a glass and pays Rs. 28 to the shopkeeper. Preeti buys two glasses, a cup and two pencil boxes and pays Rs. 35 to the shopkeeper. The cost of 10 cups will be
(A) Rs. 40
(B) Rs. 60
(C) Rs. 80
(D) Rs. 70

Answer: D

Q42. Out of four cities given below three are alike in some manner while the fourth one is different. Identify the odd one
(A) Lucknow
(B) Rishikesh
(C) Allahabad
(D) Patna

Answer: A

Q43. Given below are some characteristics of reasoning. Select the code that states a characteristic which is not of deductive reasoning:
(A) The conclusion must be based on observation and experiment
(B) The conclusion should be supported by the premise/premises
(C) The conclusion must follow from the premise/premises necessarily
(D) The argument may be valid or invalid

Answer: A

Q44. The missing term in the series $1,4,2716, ?, 36,343, \ldots \ldots$ is
(A) 30
(B) 49
(C) 125
(D) 81

Answer: C
Q45. The next term in the following series YEB, WFD, UHG, SKI, ? Will be
(A) TLO
(B) QOL
(C) QLO
(D) GOP

Answer: B

Q46 If $A$ is coded as $C, M$ as $I, N$ as $P, S$ as $O$, $I$ as $A, P$ as $N, E$ as $M, O$ as $E$ and $C$ as $S$, then the code of COMPANIES will be
(A) SPEINMOAC
(B) NCPSEIOMA
(C) SMOPIEACH
(D) SEINCPAMO

Answer: D
Q47. Given below are two premises ( (a) and (b) ).
From those two premises four conclusions (i), (ii), (iii) \& (iv) are drawn. Select the code that states the conclusions validly drawn from the premises (taking singly or jointly. )
Premises: (a) Untouchability is a curse (b) All hot pans are untouchable Conclusions: (i) All hot pans are curse (ii) Some untouchable things are hot pans (iii) All curses are untouchability (iv) Some curses are untouchability
(A) (i) and (ii)
(B) (ii) and (iii)
(C) (iii) and (iv)
(D) (ii) and (iv)

Answer: A
Q48. If the statement 'None but the brave wins the race' is false which of the following statements can be claimed to be true?
Select the correct code:
(A) All brave persons win the race
(B) Some persons who win the race are not brave
(C) Some persons who win the race are brave
(D) No person who wins the race is brave

Answer: A
Q49. If two standard form categorical propositions with the same subject and predicate are related in such a manner that if one is undetermined the other must be undetermined, what is their relation?
(A) Contrary
(B) Subcontrary
(C) Contradictory
(D) Subaltern

Answer: C
Q50. Men and woman may have different reproductive strategies but neither can be considered inferior or superior to the other, any more than a bird's wings can be considered superior or inferior to a fish's fins. What type of argument it is?
(A) Biological
(B) Physiological
(C) Analogical
(D) Hypothetical

Answer: C

Q51. Among the following propositions two are related in such a way that they cannot both be true but can both be false.
Select the code that states those two propositions.
Propositions: (a) Every student is attentive. (b) Some students are
attentive (c) Students are never attentive (d) Some students are not attentive
(A) (a) and (b)
(B) (a) and (c)
(C) (b) and (c)
(D) (c) and (d)

Answer: B
The table below embodies data on the sales revenue (Rs. in lakh) generated by a publishing house during the years 2012-15 while selling books, magazines and journals as three categories of items. Answer questions 52-54 based on the data contained in the table

| Items | Sales Revenue (in lakh) |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{2 0 1 2}$ | $\mathbf{2 0 1 3}$ | $\mathbf{2 0 1 4}$ | $\mathbf{2 0 1 5}$ |
| Journals | 46 | 47 | 45 | 44 |
| Magazines | 31 | 39 | 46 | 51 |
| Books | 73 | 77 | 78 | 78 |
| Total | $\mathbf{1 5 0}$ | $\mathbf{1 6 3}$ | $\mathbf{1 6 9}$ | $\mathbf{1 7 3}$ |

Q52. In 2015 approximately what percent of total revenue came from books?
(A) $45 \%$
(B) $55 \%$
(C) $35 \%$
(D) $25 \%$

Answer: A

Q53. The number of years in which was an increase in revenue from at two categories of items, is
(A) 0
(B) 1
(C) 2
(D) 3

Answer: C

Q54. If the year 2016 ware to show the same growth in terms of total sales revenue as the year 2015 over the 2014, then the revenue in the year 2016 must be approximately:
(A) Rs. 194 lakh
(B) Rs. 187 lakh
(C) Rs. 172 lakh
(D) Rs. 177 lakh

Answer: B
A university professor maintains data on MCA students tabulated by performance and gender of the students. The data is kept on a computer hard disk, but accidently some of it is lost because of a computer virus. Only the following could be recovered Table for question 54 Number of MCA

| Gender | Number of MCA Students |  |  |
| :---: | :---: | :---: | :---: |
|  | Average <br> Performance | Good <br> Performance | Excellent <br> Performanc |
| Male |  |  | 10 |
| Female |  |  |  |
| Total |  | 30 |  |

Panic button were pressed but to no avail. An expert committee was formed which decided that the following facts were self-evident: Half of the students were either excellent or good 40 \% students were females One-third of the males were average

Q55. How many female students are excellent?
(A) 0
(B) 8
(C) 16
(D) 32

Answer: A

Q56. What proportion of female students are good?
(A) 0
(B) 0.25
(C) 0.50
(D) 0.27

Answer: B

Q57. Approximately, what proportion of good students are male?
(A) 0
(B) 0.73
(C) 0.43
(D) 0.27

Answer: B
Q58. Which of the following statement (s) is/are TRUE?
S1: The decimal number 11 is larger than the hexadecimal number 11. S2. In the binary number 1110.101, the fractional part has the decimal value as 0.625 .
(A) S1 only
(B) S2 only
(C) Both S1 and S2
(D) Neither S1 nor S2

Answer: B
Q59. Read the following two statements:
I: information and Communication Technology (ICT) is considered a subset of Information Technology (IT)
II: The 'right to use' a piece of software is termed as copyright. Which of the above statement (s) is/are CORRECT?
(A) Both I and II
(B) Neither I nor II
(C) II only
(D) I only

Answer: D

Q60. Which of the following correctly lists computer memory types from highest to lowest speed?
(A) Secondary Storage: Main Memory (RAM); Cache. Memory; CPU Registers
(B) CPU Registers; Cache Memory; Secondary Storage; Main Memory (RAM)
(C) CPU Registers; Cache Memory: Main Memory (RAM); Secondary Storage
(D) Cache Memory; CPU Registers; Main Memory (RAM); Secondary

Storage
Answer: C
(CPU Registers $>$ Cache Memory $>$ Main Memory $($ RAM $)>$ Secondary Storage)

