

B.C.A. C01

Data Ware. & Data Ming.

C01

B.C.A. Part-III EXAMINATION, 2025
(Faculty of Science)
(Three-Year Scheme of 10+2+3 Pattern)
Data Warehousing and Data Mining

Time Allowed : Three Hours

Maximum Marks: 100

समय : तीन घंटे

अधिकतम अंक : 100

Answers of all the questions (short answer as well as descriptive) are to be given in main answer-book only. Answer of short answer type questions must be given in sequential order. Similarly all the parts of question should be answered at one place in the answer-book. One complete question should not be answered at different places in the answer-book.

Write your roll number on question paper before start writing answers of the questions.

Question paper consists of three parts.

All three parts are compulsory.

Part-I : (Very short answer) consists of 10 questions of 2 marks each, Maximum limit for each question is up to 40 words.

Part-II : (Short answer) consists of 5 questions of 4 marks each, Maximum limit for each question is up to 80 words.

Part-III : (Long answer) consists of 5 questions of 12 marks each with one question from each unit with internal choice.

PART-I

1. Very short questions. Attempt all :

- (a) Define a Data Warehouse?
- (b) What are the characteristics of a Data Warehouse?
- (c) State the purpose of a Data Warehouse?
- (d) Define Data Mining?
- (e) List any two major issues in Data Mining?



- ✓ (f) What is data preprocessing, and why is it needed?
- ✓ (g) Define association rule mining?
- ✓ (h) What is the role of the Apriori algorithm in association rule mining.
- ✓ (i) Briefly explain the concept of Clustering?
- ✓ (j) What are the applications of data mining?

PART-II

2 Short questions-

- ✓ (i) Discuss the components of data Warehouse architecture.
- ✓ (ii) Explain the classification of Data Mining Systems.
- ✓ (iii) Describe the steps involved in data preprocessing.
- ✓ (iv) Explain the FP-tree algorithm used in association rule mining.
- ✓ (v) Discuss the major clustering methods and their applications.

PART-III

- 3 (a) Describe the process of building and implementing a Data warehouse. Include a diagram?

OR

- ✓ (b) Explain the purpose and key functions of a data warehouse. Discuss its architecture with a detailed description of its components?

- ✓ 4 (a) Discuss the architecture of a Data Mining System?

OR

- ✓ (b) Explain the classification of data mining systems in detail?

- ✓ 5 (a) Explain the various techniques involved in data preprocessing?

OR

- ✓ (b) Explain the classification of data Mining system in detail?

- ✓ 6 (a) Discuss the Apriori algorithm with an example?

OR

- ✓ (b) Explain the FP-tree algorithm for frequent item set mining?

- ✓ 7 (a) Discuss the K-means clustering algorithm and its applications?

OR

- ✓ (b) Explain different types of clustering methods with examples?

