



III Semester B.C.A.(DS) Degree Examination,
December/January - 2025/26
(SEP Scheme Freshers)
COMPUTER APPLICATIONS
Fundamentals of Data Science
Paper - DS3T3

Time : 3 Hours

Maximum Marks : 80

Instructions :

Answer all the sections.

SECTION - A

- I. Answer any Ten questions. Each question carries 2 marks. (10x2=20)
1. Define Data Science.
 2. Define Data Mining.
 3. Define frequent itemset.
 4. Define classification.
 5. Define population and sample in statistics.
 6. Mention any two DM techniques.
 7. What are classification rules?
 8. What is accuracy?
 9. What is recall?
 10. What is cluster evaluation?
 11. What is a data warehouse?
 12. What is statistical inference?

[P.T.O.]

**SECTION - B**

II. Answer any Six questions. Each question carries 5 marks. (6×5=30)

13. Explain the various kinds of data used in Data Science.
14. Explain the process of Knowledge Discovery in Databases.
15. Explain the working of the Apriori algorithm.
16. Explain the concept and process of classification in Data Mining.
17. Discuss the importance and evaluation of clustering.
18. Discuss the role of prediction in data analysis.
19. Explain the concepts of data Warehouse and its architecture.
20. Explain the need for datafication with examples.

SECTION - C

III. Answer any Three questions. Each question carries 10 marks. (3×10=30)

21. a) Explain the process of mining frequent item sets using the Apriori algorithm. (5)
b) Explain the role of statistical modeling in data science. (5)
 22. a) Explain the steps involved in the Data Mining process. (5)
b) Discuss the relationship between KDD and Data Mining. (5)
 23. a) Discuss the advantages and limitations of FP-Growth algorithm. (5)
b) Explain how association rules are generated and evaluated. (5)
 24. a) Explain the working of Decision Tree Induction algorithm. (5)
b) Discuss advantages and disadvantages of decision trees. (5)
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