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Total No. of Pages : 02

Total No. of Questions : 09

B.Tech. (CSE)(Sem.-7,8)

DATA MINING AND DATA WAREHOUSING

Subject Code :BTCS-702-18

M.Code :90488

Date of Examination :20-11-2025

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. **SECTION-A is COMPULSORY** consisting of **TEN** questions carrying **TWO** marks each.
2. **SECTION-B** contains **FIVE** questions carrying **FIVE** marks each and students have to attempt any **FOUR** questions.
3. **SECTION-C** contains **THREE** questions carrying **TEN** marks each and students have to attempt any **TWO** questions.

SECTION-A

1. **Write briefly:**
 - a) Define ROLAP.
 - b) What is slicing?
 - c) List any two challenges of data mining.
 - d) What is data preprocessing?
 - e) What is data normalization?
 - f) Define Support in ARM.
 - g) What is web usage mining?
 - h) List any two characteristics of search engine.
 - i) What is rollup operation in OLAP?
 - j) What is classification?

SECTION-B

2. Explain the architecture of OLAP systems and its key components.
3. Discuss the guidelines for designing a data warehouse with a multidimensional view.
4. Describe the major steps in data preprocessing.
5. Explain the working of the Apriori algorithm with an example.
6. Discuss the role of ranking algorithms in search engines.

SECTION-C

7. What is data cube? Explain the process of data cube computation and optimization strategies used.
8. What is clustering? Explain hierarchical clustering with types and suitable diagrams. How does it handle large databases?
9. **Write a short note on:**
 - a) Significance of web mining in e-commerce.
 - b) Direct hashing and pruning.

NOTE: Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.