

**Roll No.**

**Total No. of Pages : 02**

**Total No. of Questions : 09**

**B.Tech. (Computer Science Engg.) (Sem.-7/8)**

## DATA MINING AND DATA WAREHOUSING

**Subject Code : BTCS-702-18**

**M.Code : 90488**

**Date of Examination : 04-07-22**

**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. MOLAP versus HOLAP.
  - b. Different stages of Data Warehousing.
  - c. Advantages of Decision Tree Classifier.
  - d. Different linkage methods used in the Hierarchical Clustering.
  - e. User behavior analysis through Web Mining.
  - f. Search Engine Optimization.
  - g. Need of Cube in Data Warehousing.
  - h. Web Page ranking.
  - i. Categories of clustering methods.
  - j. Data Mining query language.

## SECTION-B

2. What is the need to maintain hierarchy in web structure? Illustrate. What are the different rules for web mining?
3. Draw a neat diagram of data warehouse architecture. Explain its various components.
4. What are the reasons that make OLAP better than OLTP? Discuss two scenarios where OLAP can be used to extract information.
5. What is the application of DHP? Does it affect performance of algorithms? Justify your answer with example.
6. When will we need to perform cluster analysis of databases? How are association rules mined from large databases?

## SECTION-C

7. How Pre-processing of data improves data mining? Explain in detail about the various pre-processing activities involved in data mining.
8. What are the characteristics of decision tree induction algorithms? Discuss the role of information theory in data mining.
9. What are the most important factors for Page ranking on Internet? Explain in detail. What are the methods to improve page ranking? List some tools helpful to improve Page Rank.

**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.**