

Roll No. : .....

Total No. of Questions : 9 ]

[ Total No. of Pages : 3

**22641**

M.Tech. (CSE) 1st Semester  
Examination, March-2021  
(CBCS Scheme)

**DATA WAREHOUSE AND MINING**  
Paper-MTCSE21C4

*Time : Three Hours ]*

*[ Maximum Marks : 100*

*Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.*

*Note :- Attempt five questions in all, selecting at least one question from each Section. Question No. 1 is compulsory. All questions carry equal marks.*

1. (a) What do you mean by Metadata ? Explain.
- (b) What is the process of data mining ? Explain.

(c) What is Clustering ? How it is different from classification ?

(d) Explain the various webmining softwares. 5×4=20

#### Section-A

2. What is Data Warehouse ? What are the design guidelines for data warehouse implementation ? 20
3. What is the difference between ROLAP and MOLAP ? Describe different types of OLAP servers. 20

#### Section-B

4. (a) Explain Frequent itemsets, closed itemsets and association rules of data mining briefly.
- (b) Explain Apriori Algorithm for finding frequent itemsets in data mining. 10,10
5. (a) What is Dynamic Item Set Counting (DIC)? How is it different from Apriori algorithm. Explain in detail.
- (b) Explain mining frequent pattern without candidate generation in detail. 10,10

#### Section-C

6. (a) What is Classification ? Explain general approach to classification.
- (b) Explain Decision Tree Induction with its method in detail. 10,10
7. (a) Explain split algorithm based on information theory briefly.
- (b) What are the software used for association rule mining ? Explain. 10,10

#### Section-D

8. Write short notes on the following :
- (a) Partition methods of clustering
- (b) Hierarchical methods
- (c) Destiny based methods 20
9. (a) What is Web content mining and Web usage mining ? Explain in detail.
- (b) Explain the following :
- (i) Web Terminology and Characteristics
- (ii) Locality and Hierarchy in the web 10,10