

Total No. of printed pages = 6

63/2 (SEM-5) MCA 5.3

2021

(held in 2022)

MCA

(Theory Paper)

Paper Code : MCA-5.3

(Data Mining and Warehousing)

Full Marks – 75

Time – Three hours

The figures in the margin indicate full marks for the questions.

1. Answer the following questions : 1×5=5

(a) A data warehouse is said to contain a “time varying” collection of data because

(i) It's contents vary automatically with time.

(ii) It's life-spans is very limited

(iii) It contains historical data

(iv) It's content has explicit time-stamp.

[Turn over

- (b) The "Pivot" is an OLAP operation which
- (i) Intergrates several dimensions.
  - (ii) Is a visualization operation rotating the axes for alternative presentation.
  - (iii) Is not visualization operation.
  - (iv) Is not a rotating axes for alternative presentation.
- (c) Which of the following statement is true ?
- (i) A fact table describes the transactions stored in a DWH.
  - (ii) A fact table describes the granularity of data held in a DWH.
  - (iii) The fact table of a data warehouse is the main store of descriptions of the transactions stored in a DWH.
  - (iv) The fact table of a data warehouse is the main store of all of the recorded transactions over time.
- (d) The Apriori property means
- (i) If a set cannot pass a test, all of its supersets will fail the same test as well
  - (ii) To improve the efficiency the level-wise generation of frequent item sets

- (iii) If a set can pass a test, all of its supersets will fail the same test as well
  - (iv) To decrease the efficiency the level-wise generation of frequent item sets.
- (e) What is / are the different types of Metadata ?
1. Administrative
  2. Business
  3. Operational
- (i) Only (1) above
  - (ii) Both (2) and (3)
  - (iii) Both (1) and (2) above
  - (iv) All (1), (2), and (3) above.

2. Answer any *five* of the following questions :  
2×5=10
- (a) What is data cuboid in multidimensional data model.
  - (b) Difference between Supervised learning and Unsupervised learning with example.
  - (c) What is a decision tree ?
  - (d) List out the types of metadata.

Transaction ID	Items Purchased
1	Bread, Cheese, Egg, Juice
2	Bread, Cheese, Juice
3	Bread, Milk, Yogurt
4	Bread, Juice, Milk
5	Cheese, Juice, Milk