Sixth Semester B.E. Degree Examination, Dec.2019/Jan.2020
Data Mining and Data Warehousing

Time: 3 hrs.   Max. Marks: 80

Note: *Answer any FIVE full questions, choosing ONE full question from each module.*

Module-1

1	a.	What is Data warehouse? Explain three tier architecture of data warehouse. **(08 Marks)**
	b.	Explain the schemas of multidimensional data models. **(08 Marks)**

OR

2	a.	What is Data cube measure? Explain the categorization of measures. **(08 Marks)**
	b.	Explain data cube operations with examples. **(08 Marks)**

Module-2

3	a.	Explain data cube computation and curse of dimensionality. **(08 Marks)**
	b.	Explain different methods of indexing OLAP data. **(08 Marks)**

OR

4	a.	State and explain various data mining tasks. **(08 Marks)**
	b.	Define Similarity and dissimilarity between the objects. Find SMC and Jaccord's coefficient of two binary vectors.

$X = (1, 0, 0, 0, 0, 0, 0, 0, 0, 0)$ $Y = (0, 0, 0, 0, 0, 0, 1, 0, 0, 1)$.   **(08 Marks)**

Module-3

5	a.	What is Association Analysis? Explain Association rule , Support and Confidence. **(08 Marks)**
	b.	State Apriori principle. Write apriori algorithm for frequent itemset. **(08 Marks)**

OR

6   a.   Construct an FP tree for the following dataset.

TID	Items
1	{a, b}
2	{b, c, d}
3	{a, c, d, e}
4	{a, d, e}
5	{a, b, c}
6	{a, b, c, d}
7	{a}
8	{a, b, c}
9	{a, b, d}
10	{b, c, e}

(08 Marks)

    b.   Explain the strategies used in frequent itemset generation. **(08 Marks)**

Module-4

7	a.	Explain the general approach for solving classification problem. **(08 Marks)**
	b.	Write the algorithm for decision tree induction. **(08 Marks)**

OR

8	a.	Explain the methods of comparing classifiers.	(08 Marks)
	b.	Write the characteristics of nearest neighbor classifier.	(08 Marks)

Module-5

9	a.	Explain the requirements of cluster analysis.	(08 Marks)
	b.	State and explain K – means algorithm.	(08 Marks)

OR

10	a.	Write DBSCAN clustering algorithm and estimate time and space complexity.	(08 Marks)
	b.	State and explain the issues in cluster evaluation.	(08 Marks)

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