Librarian
Learning Resource Centre
Acharya Institutes

CBCS SCHEME

USN | | | | | | | | | | |

18CS641

Sixth Semester B.E. Degree Examination, July/August 2022
Data Mining and Data Warehousing

Time: 3 hrs. Max. Marks: 100

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

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

Module-1

1 a. With a neat diagram, explain a Three – Tier Data Warehouse. **(10 Marks)**
b. List and explain Data Warehouse Models. **(10 Marks)**

OR

2 a. With suitable example, explain Star schema , Snow Flake schema , Fact Constellation schema for Multidimensional database. **(10 Marks)**
b. Explain OLAP Operations with example. **(10 Marks)**

Module-2

3 a. Explain OLAP Data indexing for Bitmap Index and Join index. **(10 Marks)**
b. Differentiate ROLAP , MOLAP and HOLAP Servers. **(10 Marks)**

OR

4 a. Explain Data – preprocessing steps and the challenges faced in Data Mining. **(10 Marks)**
b. Briefly explain Similarity and Dissimilarity between the objects. Find the SMC and Jacquard coefficient of Two binary vectors.
X = (1, 0, 0, 0, 0, 0, 0, 0, 0, 0) Y = (0, 0, 0, 0, 0, 0, 0, 0, 0, 1). **(10 Marks)**

Module-3

5 a. Explain the rule generation in Apriori Algorithm with example. **(10 Marks)**
b. Explain the Alternative method for generating frequent itemset. **(10 Marks)**

OR

6 a. Briefly explain FP growth algorithm. **(10 Marks)**
b. Explain the objective measure of Interestingness for evaluating association patterns. **(10 Marks)**

Module-4

7 a. With a neat block diagram, explain general approach to solve classification problems with application. **(10 Marks)**
b. Explain with example, how to build decision tree using Hunt's algorithm. **(10 Marks)**

OR

8 a. Explain different method for comparing classifier. **(10 Marks)**
b. Explain the rule based classifier with example. **(10 Marks)**

Module-5

9 a. Describe K – means clustering algorithm. What are its limitations? **(10 Marks)**
b. With example, explain Agglomerative Hierarchical clustering with example. **(10 Marks)**

OR

10 a. With Time and Space complexity, explain DBSCAN Clustering Algorithm. **(10 Marks)**
b. Explain the BRICH Scalable Algorithm. **(10 Marks)**

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