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Total No. of Questions : 09]   [Total No. of Pages : 02

B.Tech. (Sem. - 7th / 8th)

DATA WARE HOUSING AND DATA MINING

SUBJECT CODE : IT - 414 (Elective - II)

Paper ID : [A0533]

[**Note :** Please fill subject code and paper ID on OMR]

Time : 03 Hours   Maximum Marks : 60

Instruction to Candidates:

1) Section - A is **Compulsory**.

2) Attempt any **Four** questions from Section - B.

3) Attempt any **Two** questions from Section - C.

Section - A

Q1)   (10 x 2 = 20)

a) What are Facts, Dimensions and Measures in Data Warehouse.

b) Comment on the statement in either true or false "Star Schema can have only one Fact table and multiple dimension tables".

c) Comment on following statements in either true or false:

(i) Operational update of data does not occur in the data warehouse environment.

(ii) Date Warehouse does not require transaction processing, recovery, and concurrency control mechanisms.

d) Differentiate operational Data Store (ODS) and Data Warehouse.

e) Name at least 3 large IT giants which provide Data Warehousing solutions.

f) Comment on the statement "Data Mining is just a synonym of reporting".

g) Give at least 3 applications of Data Mining that you have seen around you in daily life.

h) Discuss Market Basket Analysis as a Example of Data Mining.

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i) What is predictive modeling based data mining?

j) Discuss Data Visualization and Hierarchical clustering as a Data Mining techniques.

Section - B

(4 x 5 = 20)

Q2) Discuss the Dependent Data Mart, Independent Data Mart and Federated Data Mart architectures of Data Warehouse, Compare each type with suitable diagrams.

Q3) Discuss the Data Mining Process with suitable diagram, explain each component.

Q4) Differentiate Star and Snow flake schemas of Data warehouse.

Q5) (a) Give example of statistical techniques which can be used for prediction.

(b) What is association mining? Give example.

Q6) (a) Discuss various application areas of Data Mining.

(b) List some of the analytical models used in Data Mining.

Section - C

(2 x 10 = 20)

Q7) (a) Discuss the process of E.C.T.L. with suitable diagram and examples of each stage.

(b) Multidimensional Databases Vs Relational Databases, How we can achieve multidimensional storage using relational databases.

Q8) (a) Discuss Decision tree and Rule Induction as methods of Data Mining with examples.

(b) Discuss the terms: Supervised Learning, Unsupervised Learning, Semi Supervised Learning.

Q9) (a) Write short note on:
- Link analysis.
- Data Mining is a process of Knowledge discovery.

(b) MOLAP Vs ROLAP.

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