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Dec.-23-0532

CS-605 (Data Mining & Data Warehousing)

B.Tech. 6th (CBCS)

Time : 3 Hours

Max. Marks : 60

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

Note : Attempt five questions in all, selecting one question each from section A, B, C, and D. Section - E is compulsory.

SECTION - A

1. Answer the following:

- Define Data-warehouse and explain four key features of data warehouse compared to other data repository systems. (5)
- Explain 3-Tier architecture of data warehouse with neat diagram. (5)

2. Explain the following in OLAP:

- Roll up operation
- Drill Down operation
- Slice operation
- Dice operation
- Pivot operation (5×2=10)

SECTION - B

3. What do you mean by Data Pre-processing? What are the operations in data pre-processing? Discuss each with example. (10)

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4. Explain star schema, snowflake schema and aggregate table with suitable examples. (10)

SECTION - C

5. What are the major clustering methods? Explain partitioning methods for clustering in detail. (10)

6. Answer the following:

- What is Fuzzy Logic? Write a note on the role of Fuzzy logic in data mining with example. (5)
- What is Genetic Algorithm? Discuss its use in knowledge discovery with example. (5)

SECTION - D

7. What is web data mining? What are the aims of web data mining? Explain the challenges faced while mining complex data types. (10)

8. Write a short note on:

- Spatial data mining.
- Multimedia databases. (2×5=10)

SECTION - E (Compulsory Questions)

9. Attempt all the following:

- How is clustering different from classification?
- Define confidence of an association rule.
- Discuss K-mean with respect to clustering.
- Define Data cube. Give an example.
- What is Decision tree? List out the major steps used in decision tree classification. (5×4=20)