T.E. (Comps) (Sem-VI) (CBCGS)   Dec-2022

Time: 3-hour   Max. Marks: 80

Note: i. Question nc.1 is compulsory.
2. Attempt any three out of remaining five.
3. Assumptions made should be clearly indicated.
4. Figures to the right indicates full marks.
5. Assume suitable data whenever necessary.

Q1. A Describe the architecture of data warehouse system. What is Metadata in data warehouse explain it with example.   **(10)**

B Discuss updates to dimension tables in detail.   **(10)**

Q2. A Write a short note on CLARANS and Web Mining in detail.   **(10)**

B Explain Fact-less Fact Table with example. Describe ETL of data warehousing in detail   **(10)**

Q3. A Consider four objectives with two attribute (X and Y). These four objects are to be grouped together into two clusters. Following are the objects with their attribute values.   **(10)**

Object	X	Y
A	1	1
B	2	1
C	4	3
D	5	4

B Explain frequent pattern mining with example. Given the following data, apply the Apriory Algorithm, with minimum support 50%. Find the frequent patterns and Association Rules.   **(10)**

Transactions	TID	Items
1	100	1 3 4
2	200	2 3 5
3	300	1 2 3 5
4	400	2 5

Q4. A Explain difference between Agglomerative and Divisive Hierarchical Clustering. Explain difference between OLTP and OLAP.   **(10)**

B Explain Decision Tree algorithm and FP tree algorithm in detail.   **(10)**

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Q5. A   Design star and snowflake schema for Hotel Occupancy considering dimensions like Time, Hotel, Room, etc. **(10)**

B   Explain Data Preprocessing in detail **(10)**

Q6.   Write short note on the following (Solve any four) **(20)**

A   Applications of Data Mining

B   OLAP Operations

C   Data Visualization

D   Applications of Web Mining

E   Multilevel and Multidimensional Association rules.

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