


Name:			
Enrolment No:			
UPES End Semester Examination, May 2024			
Course: Data Warehousing & Multidimensional Modeling Program: B.Tech CSE Course Code: CSBA 2011		Semester: IV Time: 03 hrs. Max. Marks: 100	
Instructions:			
SECTION A (5Qx4M=20Marks)			
S. No.		Marks	CO
Q 1	Define Staging. What are the objectives of the Staging?	4	CO1
Q 2	Explain the OLAP framework advantages and disadvantages.	4	CO2
Q 3	Write the difference between the Strong Entity Set and Weak Entity Set used in the ER model.	4	CO3
Q 4	Explain the Global data warehouse architecture with a suitable diagram.	4	CO4
Q 5	Mention the difference between the Traditional Datawarehouse and Modern Datawarehouse.	4	CO1
SECTION B (4Qx10M= 40 Marks)			
Q 6	Elaborate the comparison between the Star Schema and Snowflake Schema with a suitable diagram.	10	CO3
Q 7	Explain the M-OLAP architecture with an appropriate diagram. Also mention the M-OLAP characteristics.	10	CO2
Q 8	Mention the concept of Customer classes used in data warehouse domain with example. OR Explain the term Temporal Modelling used in Data warehouse.	10	CO4

Q 9	Define the term Data warehouse and explain its architecture. Also explain the Detailed dimension modeling with a suitable example.	10	CO1
SECTION-C (2Qx20M=40 Marks)			
Q 10	<p>Explain 2NF, 3NF, and BCNF with suitable examples. Consider the given relation: R(ABCD), and functional dependencies: {A->B, B->A, B->C, C->D}. Find the highest normal form and perform appropriate normalization.</p> <p>OR</p> <p>Define the Process Architecture in Data Warehouse. Also mention the difference between the Centralized process architecture, Distributed process architecture, and Peer-to-Peer architecture with an appropriate diagram.</p>	20	CO3
Q 11	<p>a) Elaborate the phases involved in the data warehouse delivery process and explain them with appropriate example.</p> <p>b) Explain the concept of Fact constellation in Data Warehouse Modelling with a proper example.</p>	20	CO4