Roll No.												

PRESIDENCY UNIVERSITY

BENGALURU

Make Up Examinations – December 2025

Date: 26 – 12- 2025 **Time:** 1.00pm to 04.00pm

School: SOCSE	**Program:** B.Tech	
Course Code: CSE2023	**Course Name:** Data Warehousing and its application	
Semester: MK	**Max Marks**: 100	**Weightage**: 50%

CO - Levels	**CO1**	**CO2**	**CO3**	**CO4**
Marks	**26**	**26**	**24**	**24**

Instructions:

(i) Read all questions carefully and answer accordingly.

(ii) Do not write anything on the question paper other than roll number.

Part A

Answer ALL the Questions. Each question carries 2marks. **10Q x 2M=20M**

1	Define Meta data.	**2 Marks**	**L1**	**CO1**
2	Describe the difference between dependent data mart and independent data mart in Data warehouse.	**2 Marks**	**L1**	**CO1**
3	What is the use of data mart in organizations?	**2 Marks**	**L1**	**CO1**
4	What are ETL transformation types?	**2 Marks**	**L1**	**CO2**
5	Mention the primary purpose of data cleanup and transformation in data warehouse.	**2 Marks**	**L1**	**CO2**
6	Define the term " Computing shift ".	**2 Marks**	**L1**	**CO2**
7	Explain briefly about Roll-up and slice.	**2 Marks**	**L1**	**CO3**
8	What is the critical success factor in a data warehouse?	**2 Marks**	**L1**	**CO3**
9	Define Sequence data and its significance.	**2 Marks**	**L1**	**CO4**
10	What is the use of data pre-processing in real-time?	**2 Marks**	**L1**	**CO4**

Part B

Answer the Questions **Total 80 Marks.**

11.	a.	Explain the different types of building approach in data warehouse.	10 Marks	L2	CO1
	b.	Demonstrate the 3-tier data warehouse architecture with a neat diagram.	10 Marks	L3	CO1

or

12.	a.	Explain the generic characteristics of a data warehouse by describing their functions and illustrating their interrelationships with examples.	10 Marks	L2	CO1
	b.	Demonstrate the business and performance consideration for building a data warehouse.	10 Marks	L3	CO1

13.	a.	Explain the ETL-process and its functionalities with suitable diagram.	20 Marks	L2	CO2

or

14.	a.	Suppose that a data warehouse for Big University consists of the four dimensions student, course, semester, and instructor, and two measures count and avg grade. At the lowest conceptual level (e.g., for a given student, course, semester, and instructor combination), the avg grade measure stores the actual course grade of the student. At higher conceptual levels, avg grade stores the average grade for the given combination. (a) Draw a snowflake schema diagram for the data warehouse. (b) Starting with the base cuboid [student, course, semester, instructor], what specific OLAP operations (e.g., roll-up from semester to year) should you perform in order to list the average grade of CS courses for each Big University student. (c) If each dimension has five levels (including all), such as "student < major < status < university < all", how many cuboids will this cube contain (including the base and apex cuboids)?	20 Marks	L2	CO2

15.	a.	Demonstrate the different design principle in data warehouse.	20 Marks	L2	CO3

Or

16.	a.	Explain various attribution selection measures in classification with examples.	20 Marks	L2	CO3

17.	a.	Apply the Knowledge discovery process, list the phases and indicate the activities in each phase.	20 Marks	L3	CO4

Or

18.	a.	Apply various pre-processing methods and evaluate their effectiveness across different stages and types of data utilized in Data Mining.	20 Marks	L3	CO4