

Name:
Enrolment No:



**School of Business
UPES
End Semester Examination, December 2023**

**Program: BBA-ABD
Subject/Course: Business Intelligence
Course Code: STGM3006**

**Semester: V
Max. Marks: 100
Duration: 3 Hours**

**SECTION A
10Qx2M=20Marks**

Q.No 1	Attempt All MCQ's	Marks	CO
A	Which of the following is not a common component of a BI architecture? A. Data warehouse B. Data visualization C. Data mining D. Data entry	2	CO1
B	Which type of data processing is typically associated with real-time or near-real-time decision-making in BI? A. Batch processing B. Stream processing C. OLAP processing D. ETL processing	2	CO1
C	Which BI technology is used to create interactive and dynamic reports and dashboards? A. ETL B. OLAP C. Data mining D. Data warehousing	2	CO1
D	What is a data mart in the context of BI? A. A place to store data backups B. A small, subject-specific data warehouse C. A data cleaning tool D. A data visualization software	2	CO1
E	In BI, what is a dimension? A. A physical unit of measurement B. A characteristic or attribute used for organizing data C. A type of data visualization chart D. A database management system	2	CO1

F	<p>What is the purpose of a BI report?</p> <p>A. To store data for future use B. To transform data into actionable insights C. To perform real-time data processing D. To extract data from external sources</p>	2	CO1
G	<p>In the context of data warehousing, which type of schema is the most normalized and often involves splitting dimension tables into sub-dimensions to reduce redundancy?</p> <p>A. Star schema B. Snowflake schema C. Galaxy schema D. Fact schema</p>	2	CO1
H	<p>When designing a star schema, which table contains the measures or quantitative data that you want to analyze?</p> <p>A. Fact table B. Dimension table C. Bridge table D. Snowflake table</p>	2	CO1
I	<p>In a data warehouse, what is the primary purpose of dimension tables?</p> <p>A. To store historical transaction data B. To contain the measures or facts to be analyzed C. To describe the characteristics and attributes of data D. To connect multiple data sources</p>	2	CO1
J	<p>Which type of dimension describes the various time periods, such as years, months, and days, in a data warehouse?</p> <p>A. Degenerate dimension B. Time dimension C. Junk dimension D. Slowly changing dimension (SCD)</p>	2	CO1
SECTION B			
4Qx5M= 20 Marks			
Attempt any four questions. Be brief in your answers			
Q1	Define Business Intelligence and its primary purpose.	5	CO2
Q2	Recall the main differences between data and information in the context of BI.	5	CO2
Q3	Explain Data Visualisation and its relevance for Industry	5	CO2
Q4	Enumerate the types of data sources that BI systems commonly use.	5	CO2
Q5	Define data warehouse	5	CO2
SECTION-C			

	3Qx10M=30 Marks		
	All questions are compulsory to attempt		
Q1	Evaluate the impact of poor data quality on the results of a BI analysis.	10	CO2
Q2	Discuss the difference between Datawarehouse and Data Lake	10	CO2
Q3	Describe the role of ETL (Extract, Transform, Load) processes in data warehouse	10	CO2
	SECTION-D 1Qx30M= 30 Marks		
	Attempt <u>only one</u> question		
Q1	A social media platform is looking to enhance its user engagement analysis. Analyze the KPI's and design a star schema to represent user activities, posts, and interactions on the platform, and what dimensions and fact tables would be involved?	30	CO3
Q2	A university wants to improve its reporting on student enrollment, course registration, and academic performance. Illustrate the design a star schema for this educational institution, including the dimensions and fact tables.	30	CO3