

Enrollment No./Seat No.:

GUJARAT TECHNOLOGICAL UNIVERSITY
MBA - SEMESTER - III EXAMINATION - WINTER 2025

Subject Code: MB03096011

Date: 17-12-2025

Subject Name: Business Reporting and Data Visualization

Time: 10:30 AM TO 01:30 PM

Total Marks: 70

Instructions

- 1. Attempt all questions.**
- 2. Make suitable assumptions wherever necessary.**
- 3. Figures to the right indicate full marks.**
- 4. USE of SIMPLE calculators AND non-programmable scientific calculators are permitted.**

	Marks
Q.1 ALL 7 Questions must be Compulsory.	14
(a) What is the main difference between internal and external business reports?	
(b) What is the purpose of a Balanced Scorecard in business reporting?	
(c) What is an infographic?	
(d) What is the difference between a bar chart and a line chart?	
(e) What is the difference between a Live connection and an Extract in Tableau?	
(f) What is a Waterfall chart used for?	
(g) What is Gephi primarily used for?	
Q.2 (a) What are the key standards and best practices for structuring business reports to ensure consistency and comparability?	07
(b) You are tasked with preparing a monthly internal performance report for a retail company. Identify the key performance indicators (KPIs) you would include and justify your selection.	07
OR	
(b) Design a simple Balanced Scorecard for a mid-sized manufacturing company. Mention key objectives, measures, and indicators for each perspective.	07
Q.3 (a) Explain the importance of data visualization in decision-making across different organizational levels. Illustrate how visualization aids in identifying trends and patterns.	07
(b) Given a dataset of monthly sales for four product categories, describe how you would use a combination of line and bar charts to show both trends and category comparisons effectively.	07
OR	
(a) Explain the impact of emerging JavaScript and HTML5 trends on modern data visualization tools and interactivity.	07
(b) You are asked to visualize project progress over six months for multiple teams. Explain how a Gantt chart can be used and what data inputs are necessary.	07

- Q.4 (a)** Explain the key components of the Tableau interface and workspace. How do these components contribute to efficient visualization development? **07**
- (b)** Describe the importance of trend lines and forecasting in business analytics. What types of forecasting methods does Tableau support? **07**

OR

- (a)** Describe the different types of calculations available in Tableau - String, Date, Table, and Level of Detail (LOD) expressions and highlight how they enhance analytical capabilities. **07**
- (b)** Compare Google Data Studio and Tableau in terms of connectivity, visualization flexibility, and sharing capabilities. **07**

Q.5 InsightEdge Analytics Pvt. Ltd. is a mid-sized business intelligence firm based in Bengaluru that specializes in developing customized reporting and visualization solutions for retail and manufacturing clients. Initially, each business unit prepared its own reports using Excel and PowerPoint, focusing mainly on operational figures. However, inconsistencies in report formats, key metrics, and data sources created confusion during management reviews. To address this, the company's leadership initiated a Business Reporting Framework project aimed at aligning internal and external reporting with defined performance metrics.

The management team introduced Balanced Scorecards to track performance across four perspectives — financial, customer, internal processes, and learning. KPIs such as client retention rate, project delivery time, and revenue growth were included in the reporting dashboard. To strengthen decision-making, InsightEdge adopted Tableau as its primary visualization tool. The analytics team connected Tableau to multiple data sources, including SQL databases for client projects and Excel sheets for HR and finance data. They used Extracts to improve dashboard speed and implemented Level of Detail (LOD) calculations to measure client-level profitability, even when viewing data at regional levels.

For data storytelling, the company's analysts designed interactive dashboards with drill-down features, allowing managers to explore details by region, project, or client type. Forecasting functions in Tableau helped predict quarterly revenue trends. Additionally, some projects integrated R scripts through Rserve to run advanced customer churn models.

InsightEdge also experimented with Google Data Studio to create lighter reports for clients with smaller data needs, connecting directly to Google Sheets for survey data. For a special marketing analytics project, the firm used Gephi to visualize social media interaction networks, identifying key influencers in client campaigns.

- (a)** How did InsightEdge ensure its reports were purpose-driven and aligned with strategic objectives? Mention any two tools or frameworks they used. **07**
- (b)** Which types of visualizations and principles of presentation might the analytics team have applied to make their dashboards clearer and more engaging? **07**

OR

- (a)** Explain how the use of Extracts and LOD calculations in Tableau helped improve the efficiency and accuracy of InsightEdge's data reporting. **07**
- (b)** Why did InsightEdge choose to use both Google Data Studio and Gephi alongside Tableau, and what unique visualization capabilities did these tools provide? **07**
