



CBCS SCHEME

MBABA314

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Third Semester MBA Degree Examination, June/July 2026 Data Visualization

Time: 3 hrs.

Max. Marks: 100

- Note: 1. Answer any FOUR full questions from Q.No.1 to Q.No.7.
2. Question No. 8 is compulsory.
3. M : Marks, L: Bloom's level, C: Course outcomes.*

			M	L	C
Q.1	a.	Differentiate between Scatter Plot and Bubble Chart.	3	L2	CO1
	b.	With the aid of a clear and well-labeled diagram, explain the major components of a box plot (box-and-whisker plot).	7	L3	CO1
	c.	Discuss any five common types of visual representations in data visualization.	10	L2	CO2
Q.2	a.	What is Visual Mapping?	3	L1	CO2
	b.	Discuss in details four levels of validations.	7	L2	CO2
	c.	Discuss any ten common ways of visual mapping used in data visualization.	10	L3	CO1
Q.3	a.	Differentiate between 2D Visualization and 3D Visualization.	3	L2	CO3
	b.	Describe the different categories of data visualizations based on the nature and origin of their data sources, and illustrate each category with suitable examples.	7	L3	CO3
	c.	Explain 5 Misleading Data Visualization with suitable example.	10	L3	CO4
Q.4	a.	What is Visualization of groups?	3	L1	CO4
	b.	List out some common techniques and types of visualizations for representing groups in data.	7	L2	CO4
	c.	Explain concept of Dashboard in Power BI.	10	L3	CO3
Q.5	a.	What is Volumetric data?	3	L1	CO3
	b.	Discuss common techniques and tools for visualizing volumetric data.	7	L2	CO3
	c.	Explain in detail concept of GIS systems.	10	L3	CO4

Q.6	a.	Define the term "containment" in the context of connections and matrix views.	3	L2	CO3																																																												
	b.	Explain the role of color theory in map coloring. How do color maps and other visual channels enhance the interpretation of spatial data?	7	L2	CO4																																																												
	c.	Discuss in detail Scalar fields – Vector fields – Tensor fields in data Visualization.	10	L3	CO4																																																												
Q.7	a.	Illustrate any three common types of visual representations used in data visualization.	3	L2	CO1																																																												
	b.	Explain concept of gestalt principals in detail.	7	L2	CO1																																																												
	c.	Discuss static vs dynamic datasets and their implications for visualization.	10	L3	CO2																																																												
Q.8	Compulsory Question :		20	L3	CO2																																																												
<table><tr><th>Day</th><th>Browser</th><th>No. of Clicks</th><th>Pages Viewed</th><th>Time (min)</th><th>Amount Spent (Rs.)</th></tr><tr><td>Monday</td><td>Chrome</td><td>13</td><td>4</td><td>8.5</td><td>2668</td></tr><tr><td>Saturday</td><td>Chrome</td><td>15</td><td>5</td><td>16.9</td><td>3469</td></tr><tr><td>Monday</td><td>Internet Explorer</td><td>20</td><td>6</td><td>7.3</td><td>5215</td></tr><tr><td>Monday</td><td>Chrome</td><td>42</td><td>6</td><td>30.1</td><td>10423</td></tr><tr><td>Saturday</td><td>Internet Explorer</td><td>20</td><td>6</td><td>13.3</td><td>5404</td></tr><tr><td>Friday</td><td>Firefox</td><td>40</td><td>8</td><td>18.0</td><td>13440</td></tr><tr><td>Sunday</td><td>Chrome</td><td>16</td><td>4</td><td>11.8</td><td>3717</td></tr><tr><td>Friday</td><td>Firefox</td><td>24</td><td>4</td><td>10.8</td><td>7038</td></tr><tr><td>Tuesday</td><td>Chrome</td><td>24</td><td>5</td><td>7.8</td><td>7181</td></tr></table>			Day	Browser	No. of Clicks	Pages Viewed	Time (min)	Amount Spent (Rs.)	Monday	Chrome	13	4	8.5	2668	Saturday	Chrome	15	5	16.9	3469	Monday	Internet Explorer	20	6	7.3	5215	Monday	Chrome	42	6	30.1	10423	Saturday	Internet Explorer	20	6	13.3	5404	Friday	Firefox	40	8	18.0	13440	Sunday	Chrome	16	4	11.8	3717	Friday	Firefox	24	4	10.8	7038	Tuesday	Chrome	24	5	7.8	7181			
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For above data set list out any five commonly used data Visualization and explain why they are essential.																																																																	
