Graphic Era
HILL UNIVERSITY
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University under section 2(f) of UGC Act, 1956

End Term (Odd) Semester Examination November 2025

Roll no...............................

Name of the Course and semester: MBA III
Name of the Paper: Data Visualization
Paper Code: MBA 303 (BA2)

Time: 3 hour   Maximum Marks: 100

Note:
- *(i)* This question paper contains two Sections-Section A and B
- *(ii)* Both Sections are compulsory
- *(iii)* Answer any two sub questions from a, b & c in each main question of Section A. Each sub question carries 10 marks.
- *(iv)* Section B, consisting of a case study, is compulsory. It is of 20 Marks.

Section A

Q1.   (2X10=20 Marks)

(a) A marketing manager claims that "Excel charts are enough for managerial reporting; advanced visualisation tools are unnecessary." Critically evaluate this statement with business examples. (CO1)

(b) A company's leadership team often makes intuitive decisions rather than data-driven ones. As a business analyst, explain how visual analytics could transform their decision-making approach. (CO3)

(c) Imagine a situation where sales data across regions show inconsistencies. Discuss how data visualization can help in identifying patterns and possible causes of performance variation. (CO2)

Q2.   (2X10=20 Marks)

(a) A retail chain uses customer purchase data but struggles to predict buying patterns. Without using the term "data mining," explain what process could be adopted to convert this data into actionable business insights. (CO2)

(b) An MBA intern suggests visualizing "cleaned and prepared" data only. Analyze why data preparation and data quality matter before visualization. (CO3)

(c) You have access to two years of employee performance data. Discuss how identifying hidden relationships in this data could support HR decisions. (CO2)

Q3.   (2X10=20 Marks)

(a) The finance team currently uses Excel for reporting. The CFO is considering a shift to Power BI. What managerial benefits and visualization capabilities might justify this transition? (CO3)

(b) A start-up with limited resources is debating between Tableau and R Studio for its analytics work. Recommend which tool suits them better and justify your reasoning with use cases. (CO3)

(c) In what situations might Excel outperform Tableau or Power BI, despite their advanced features? Support your answer with a business-oriented argument. (CO3)

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Q4. (2X10=20 Marks)

(a) A dashboard shows a 20% sales increase, but overall profits have fallen. Discuss how visualization can help managers identify underlying causes rather than rely on surface-level metrics. (CO4)

(b) Suppose you are designing a visualization for the CEO of a logistics company. What visualization principles would guide your design to ensure clarity, focus, and strategic insight? (CO4)

(c) Different managers interpret the same dashboard differently. Explain why context and visualization design choices influence interpretation and decision outcomes. (CO5)

Section B

Q5. Case Study (20 Marks)

Case Scenario:

GlobalMart Pvt. Ltd., an international retail company, wants to enhance its decision-making process using visual analytics. The firm currently prepares monthly Excel-based sales reports that are static and time-consuming to interpret. Management is considering implementing either Tableau or Power BI for interactive dashboards that display real-time sales performance, inventory levels, and regional trends. However, the IT department raises concerns about cost, data integration, and staff training needs.

Answer the following:

(a) Identify key business factors GlobalMart should evaluate before choosing a visualization tool. (CO4)
(b) Discuss how visualization can help management transition from reactive to proactive decision-making. (CO5)
(c) Propose a dashboard design outline (data categories, chart types, and KPIs) that would best support GlobalMart's business goals. (CO5)