

Roll No.

Total No. of Pages : 03

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MBA (Sem.-4)

DATA VISUALIZATION FOR MANAGERS

Subject Code : MBA-963-18

M.Code : 78031

Date of Examination: 27-05-2025

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. **SECTION-A** contains **EIGHT** questions carrying **TWO** marks each and students has to attempt **ALL** questions.
2. **SECTION-B** consists of **FOUR** Subsections : **Units-I, II, III & IV**. Each Subsection contains **TWO** questions each carrying **EIGHT** marks each and students have to attempt any **ONE** question from each Subsection.
3. **SECTION-C** is **COMPULSORY** and consists of **ONE** Case Study carrying **TWELVE** marks.

SECTION-A

- 1. Answer briefly :**
- a) What is meant by Cross filtering?
 - b) What are histograms?
 - c) What is the relevance of ELT?
 - d) What are the applications of star schema?
 - e) What is the relevance of KPI in an organization?
 - f) What is meant by Data Modeling?
 - g) What is the relevance of Infographics in Data Visualization?
 - h) What are the parameters for effective storytelling?

SECTION-B

UNIT-I

2. *“From basic graphs to intricate dashboards, data visualization has changed over time.”* Justify this statement by providing a detailed explanation while providing context for the data science and management fields.
3. Explain the applications of the following concepts in data visualizations:
 - a) What are the applications of Bar Chart?
 - b) Discuss the need and relevance of Exploratory Visualization.

UNIT-II

4. Discuss in detail the various techniques of data integration and transformations. Explain by citing examples.
5. Explain the following terms by giving relevant examples.
 - a) What is a Snowflake Schema? Also, explain the applications of Snowflake Schema.
 - b) Discuss the need and relevance of Predictive Modelling.

UNIT-III

6. What is meant by KPI? Make a detailed list of KPIs for students and teachers at your university/college. Also, provide justification for the listed KPIs.
7. **Write notes on :**
 - a) What are critical data modelling fundamentals for analytics?
 - b) Discuss the procedure of selecting data for KPIs in an organization.

UNIT-IV

8. Discuss in detail the role and relevance of the following aspects in storytelling using visualization:
 - a) Context
 - b) Visual tool

9. What are key features that differentiate Dashboards, Storyboards and Infographics from each other? Explain by stressing the advantages of dashboards, storyboards and infographics.

SECTION-C

10. CASE STUDY:-

Data visualization tools have come a long way from their origins as static counts to interactive displays composed of multiple data sources. While data visualization is a relatively new discipline, many currently used techniques were developed during the industrial revolution, and the field advanced significantly by the middle of the nineteenth century. However, to truly understand the impact and evolution of data visualization, it is important to look further into history. Visualizations have been used by mankind since the dawn of time to instruct, convey meaning, and tell stories. Maps, in particular, have a long history and were used by ancient civilizations to navigate and communicate important information. Over time, visualizations have become increasingly sophisticated and specialized, with cartography, statistics, and science practitioners using them to understand complex information better. Businesses and people benefit greatly from data visualization because it makes it possible to quickly identify and comprehend important data characteristics such as trends, outliers, and patterns. A good data visualization strikes a fine balance between aesthetics and utility, presenting data in a way that is accessible to a wide audience while yet drawing attention to the most important findings. Data visualization tools enable fast decision making and provide access to understanding patterns and trends.

Many data visualization tools are available today, each with unique strengths and weaknesses. Out of all tools, Tableau, which is best for interactive charts. Tableau is frequently used in data analytics due to its usefulness in visualizing data. Using Tableau, a popular data visualization tool has benefits and drawbacks.

Questions:-

- a) Justify the following statement mentioned in the case study by citing relevant examples:-

A good data visualization strikes a fine balance between aesthetics and utility, presenting data in a way that is accessible to a wide audience while yet drawing attention to the most important findings".

- b) Discuss in detail the benefits and drawbacks of Tableau. Explain by citing examples.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.