18019

BRAINWARE UNIVERSITY

Term End Examination 2025-2026
Programme – MBA-2024
Course Name – Digital Technologies for Analytics
Course Code - MBA30201D
(Semester III)

Full Marks : 60 **Time : 2:30 Hours**

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question) 1 x 15=15

1. *Choose the correct alternative from the following :*

(i) Define the primary goal of data visualization?

a) To make data look attractive
b) To communicate information clearly
c) To replace traditional databases
d) To reduce data storage costs

(ii) Identify the type of analytics that focuses on summarizing historical data.

a) Predictive Analytics
b) Prescriptive Analytics
c) Descriptive Analytics
d) Diagnostic Analytics

(iii) Predict a key characteristic of Big Data.

a) Small volume
b) Structured format only
c) High velocity
d) Low variety

(iv) Identify the phase of the data lifecycle that involves interpreting data for decision-making.

a) Data Collection
b) Data Processing
c) Data Analysis
d) Data Action

(v) Choose the technology commonly associated with Big Data processing.

a) Microsoft Word
b) Hadoop
c) Adobe Photoshop
d) AutoCAD

(vi) Assertion (A): Starbucks uses data analytics to optimise store locations and product personalisation. Reason (R): Data analytics helps organisations in predicting weather and maintaining airplane engines.

a) Both A and R are true, and R is the correct explanation of A
b) Both A and R are true, but R is not the correct explanation of A.
c) A is true, but R is false.
d) A is false, but R is true.

(vii) Evaluate the challenges of Big Data technologies and choose the correct option that should a data-driven enterprise prioritise to effectively manage Big Data.

a) Reducing employee count
b) Investing in scalable data infrastructure
c) Limiting data variety
d) Converting digital data to paper files

(viii) Describe what Scikit-Learn is.

a) Cloud platform
b) Web browser
c) Machine learning library
d) Database

(ix) Describe the tool that allows low-code data workflows from the following options.

a) KNIME
b) SAS
c) R
d) Power BI

(x) Examine which of the following best describes AWS.

a) A video streaming platform
b) A cloud computing service provider
c) A social media network
d) A web browser

(xi) Analyse the following use cases fro AWS and select the best one that demonstrates the advantage of using AWS over traditional on-premise infrastructure.

a) Data cleaning
b) Data mining
c) Web browsing
d) Automatically scaling server resources

(xii) Analyse which step logically comes first when using Power BI to build a dashboard.

a) Publish report
b) Load data
c) Design visuals
d) Add filters

(xiii) Conclude which tool a cost-conscious, Microsoft-heavy organisation should pick between Tableau and Power BI, given that Tableau offers more design flexibility while Power BI is cheaper and integrates with Microsoft tools.

a) Tableau
b) Power BI
c) R
d) KNIME

(xiv) Evaluate the best scenario for using KNIME.

a) Creating interactive dashboards
b) Building machine learning workflows visually
c) Deploying cloud infrastructure
d) Writing JavaScript code

(xv) Analyse which of the following tools would be ideal for cloud-based model training.

a) KNIME
b) AWS
c) Power BI
d) R

Group-B

(Short Answer Type Questions) 3 x 5=15

2. Define data analytics. (3)
3. Explain the scope of analytics in modern business. (3)
4. Propose a business scenario where Big Data technologies could transform operations. (3)
5. Describe the process of creating a dashboard using Power BI. (3)
6. Analyze the value of analytics in a marketing campaign. (3)

OR

Differentiate between structured and unstructured data in terms of business value. (3)

Group-C

(Long Answer Type Questions) 5 x 6=30

7. Describe the types of data analytics—descriptive, predictive, and prescriptive—and give a real-world business example for each. (5)
8. Illustrate the data lifecycle stages with a practical example of data collection through to decision action in a retail company. (5)
9. Critically assess the challenges organizations face in managing the data lifecycle effectively. (5)
10. Design a strategy for a retail organization to implement Big Data analytics to enhance customer experience and operational efficiency. (5)
11. Analyze the challenges and solutions for managing large streaming data in real-time analytics. (5)

12. Analyze the trend of Big Data Technologies, explaining popular tools and platforms used in handling big data. (5)

OR

Evaluate how descriptive, predictive, and prescriptive analytics can be integrated to improve a healthcare system's performance. (5)

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