D 125445   (Pages : 3)   Name......................................

Reg. No................................

SECOND SEMESTER M.B.A. DEGREE (REGULAR) EXAMINATION JULY 2025

(CUCSS)

M.B.A.

BUS2C14—DATA ANALYTICS AND COMPUTING

(2024 Scheme)

Time : Three Hours   Maximum : 60 Marks

Part A

*Answer **all** questions, each question carries 2 marks.*

1. What is meant by by scales of measurement interval and ratio ?

2. What is the purpose of IQR ?

3. What is the meaning of Kurtosis ?

4. Interpret a negative correlation in a business scenario.

5. List any *two* Key Ethical Principles in Business Analytics.

(5 × 2 = 10 marks)

Part B

*Answer any **four** questions from this Part.*
Each question carries 4 marks.

6. Describe simple linear regression.

7. Discuss the steps in sampling with example ?

8. Discuss the importance of standard deviation in comparing datasets.

9. Provide a simple example of how to find the correlation using R.

10. Using SPSS, how do you create a scatter plot to explore the relationship between the variables Height and Weight in a given dataset.

Turn over

11. Apply simple linear regression to predict future sales based on historical advertisement spending.

(4 × 4 = 16 marks)

Part C

Answer any **three** *questions from this Part.*
Each question carries 8 *marks.*

12. Analyze the differences among mean, median, and mode, and discuss when to use each.

13. Analyze how multiple linear regression (MLR) effectively contributes to predictive modelling.

14. Analyze the use of Excel as an optimization tool in prescriptive analytics. Demonstrate with a suitable example.

15. Explain how data analytics can be useful for decision making in the Finance domain.

16. Evaluate the suitability of various data visualization tools (bar chart, pie chart, histogram) for presenting survey results.

(3 × 8 = 24 marks)

Part D

Compulsory Question, 10 *marks.*

17. Case Study -Customer Satisfaction and Data-Driven

Insights at *Comfy Stay Hotels*.

ComfyStay Hotels, operating in 5 states, has been tracking customer satisfaction using post-visit feedback forms. These forms measure satisfaction based on room cleanliness, staff behavior, amenities, and value for money. A recent dip in ratings at two properties raised concern.

The operations team suspects that staffing shortages and maintenance issues may be affecting experience, but they seek a data-backed evaluation to confirm.

Answer the following questions.

(a) Describe the data analytics tools you would suggest that can be used to study this problem. Why do you suggest these ?

(b) Propose a dashboard layout that visualizes customer satisfaction trends across all five states. What key metrics and data visualization components would you include to assist regional managers in continuous monitoring and improvement ?

(10 marks)