Reg. No.															

Question Paper Code	14266

MBA - DEGREE EXAMINATIONS, NOV / DEC 2025

Third Semester

Master of Business Administration

24MBS305 - BUSINESS ANALYTICS AND BIG DATA

Regulations - 2024

Duration: 3 Hours | Max. Marks: 100

PART - A (10 × 2 = 20 Marks)

Answer ALL Questions

		Marks	K – Level	CO
1.	Why data is considered a valuable business asset?	2	K1	CO1
2.	What is the role of Data Scientist?	2	K1	CO1
3.	State the characteristics of Unstructured Data.	2	K1	CO2
4.	Name any two Data Visualization tools.	2	K1	CO2
5.	Recall the term Dimensionality Reduction in Model Building.	2	K1	CO3
6.	Interpret the value of the coefficient of determination (R^2) = 0.85.	2	K2	CO3
7.	Rephrase Association Rule.	2	K2	CO4
8.	Infer 'Cost per Click'.	2	K2	CO4
9.	Relate the term 'Churn Rate' in Marketing Analytics.	2	K2	CO5
10.	Interpret the meaning of Cognitive Analytics.	2	K2	CO5

PART - B (5 × 13 = 65 Marks)

Answer ALL Questions

			Marks	K – Level	CO
11.	a)	Explain the evolution and historical development of Data Analysis.	13	K2	CO1
		OR			
	b)	Compare and contrast the key roles associated with Business Analysts, Data Engineer and Data Scientist.	13	K2	CO1
12.	a)	Illustrate the Characteristics of Big Data.	13	K2	CO2
		OR			
	b)	Outline the methods to handle missing data in Big Data Analytics.	13	K2	CO2
13.	a)	Construct the framework for building a Multiple Linear Regression model.	13	K3	CO3
		OR			
	b)	Make use of a Confusion Matrix to evaluate the performance of classification algorithms with an example.	13	K3	CO3
14.	a)	Analyze the process of Market Basket Analysis.	13	K4	CO4

OR

b) Examine the key Social Network Metrics used to measure online performance. *13 K4 CO4*

15. a) Evaluate the applications of Marketing Analytics. *13 K5 CO5*

OR

b) Assess the measures of Supply Chain Analytics. *13 K5 CO5*

PART - C (1 × 15 = 15 Marks)
(Compulsory)

16. **Background:** *15 K6 CO2*

You are working with a machine learning model designed to classify customer feedback as either **positive** or **negative**. The model's predictions have been recorded in the following confusion matrix:

	Predicted Positive	Predicted Negative
Actual Positive	40	10
Actual Negative	5	45

You are tasked with evaluating the performance of this classification model and making inferences about its accuracy and the effectiveness of its predictions.

Questions

1 .Calculate the accuracy, precision, recall, and F1-score

Interpret the results of the precision, recall, and F1-score for both classes. What do these metrics reveal about the model's performance in predicting positive and negative cases?