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**Gandhi Institute of Engineering and Technology University, Odisha, Gunupur
(GIET University)**

M. Tech. (Third Semester - Regular) Examinations, December – 2025

24MMGOE23001 – Business Analytics



Time: 3 hrs

Maximum: 60 Marks

Answer ALL questions

(The figures in the right hand margin indicate marks)

PART – A

(2 x 5 = 10 Marks)

Q.1. Answer **ALL** questions

	CO #	Blooms Level
a. How is correlation analysis relevant in Business Analytics?	CO1	K1
b. Define statistic and parameter with reference to testing of hypothesis	CO2	K2
c. How to ensure data Quality?	CO3	K1
d. Define judgmental forecasting.	CO4	K1
e. List the benefits of formulating decision problems clearly.	CO5	K1

PART – B

(10 x 5 = 50 Marks)

Answer ALL the questions

	Marks	CO #	Blooms Level
2. a. Write a detailed note on the importance of statistical tools in data analysis.	5	CO1	K1
b. Elaborate Descriptive Statistical Methods and their role in Business Analytics.	5	CO1	K1
(OR)			
c. Write short notes on Data Collection, Data Management, Data Analysis, and Data Visualization.	5	CO1	K1
d. Discuss the Relationship of Business Analytics process and Organization.	5	CO1	K1
3.a. Write brief note on Data Modelling Process.	5	CO2	K1
b. Discuss in detail about important resources for Data and Models in Business Analytics.	5	CO2	K2
(OR)			
c. Explain Modelling Relationship and Trends in data.	5	CO2	K2
d. Compare and contrast simple linear regression and multiple regression.	5	CO2	K1
4.a. Explain the role of data mining in Business Analytics.	5	CO3	K1
b. Differentiate Descriptive Analytics and Predictive Analytics.	5	CO4	K2
(OR)			
c. Write notes on Non-linear optimization and Outsourcing.	5	CO3	K1

- d. Find rank correlation coefficient for the following data and comment on the result.

Items	A	B	C	D	E	F	G	H	I
Mark in English	30	55	90	80	50	75	61	80	70
Mark in Mathematics	45	75	75	60	80	35	42	95	67

5 CO4 K3

- 5.a. What is Time Series Analysis? Discuss various methods of Time Series Analysis. 5 CO4 K1
- b. Discuss about Forecasting Time series with Seasonality. 5 CO5 K2

(OR)

- c. Discuss the role of Business Analytics in supporting decision-making during New-Product Development. 5 CO6 K2
- d. Define Risk. Discuss about Risk analysis. 5 CO6 K1
- 6.a. Discuss the Key Components of a Decision Problem. 5 CO4 K1
- b. Explain Decision Strategies with and without outcome Probabilities. 5 CO5 K1

(OR)

- c. Explain the steps involved in constructing and analyzing a decision tree. 5 CO4 K1
- d. Obtain the two regression lines for the following data.

X	6	8	10	2	4
Y	10	7	5	12	8

5 CO2 K2

Also, estimate Y when X is 20.

--- End of Paper ---