



B.Tech III Semester Supplementary Examinations, February 2024

**INTRODUCTION TO ANALYTICS
(IT)**

Maximum Marks: 70

Date: 26.02.2024 Duration: 3 hours

- Note:**
1. This question paper contains two parts A and B.
 2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
 3. Part B consists of 5 Units. Answer any one full question from each unit which carries 10M.
 4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks (10X2M=20 Marks)		CO	BTL
1	Explain about basic math variables of R.	1	L2
2	Write the Advantages of R Programming language.	1	L1
3	List any two probability distribution functions.	2	L1
4	What is Bivariate random variable?	2	L1
5	What is NoSQL?	3	L1
6	Define Analytics.	3	L1
7	What is OLS Regression?	4	L1
8	State Multiple Regression.	4	L1
9	Mention the role of Analytics in Business.	5	L1
10	Define production line.	5	L1

Part-B

Answer All the following questions. (5X10M=50Marks)		M	CO	BTL
11	A. What is R programming? How to run R? B. Explain with an example function in R.	5M 5M	1	L2
OR				
12	A. Explain how to read a CSV file and display its contents. B. Illustrate with an example loops in R.	5M 5M	1	L2
13	A. Write in brief about summary statistics. B. Write about Binomial distribution in R.	5M 5M	2	L2
OR				
14	A. State and explain Central Limit Theorem. B. Write about R functions for Probability distributions.	5M 5M	2	L2
15	A. Write steps involved in connecting R to NoSQL database. B. Discuss with an example Excel and R integration with R connector to perform read operation.	5M 5M	3	L2
OR				
16	A. List and describe the various approaches in R to read/write/execute excel files.	5M	3	L2

	B. Mention any two NoSQL databases. Write procedure to connect MongoDB using R.	5M		
17	A. Explain concepts of correlation and covariance with examples. B. What is ANOVA? Explain with examples.	5M 5M	4	L2
	OR			
18	A. What do you mean by Regression analysis? Explain. B. Discuss in brief about Heteroscedasticity.	5M 5M	4	L2
19	A. Write about business objectives and their significance. B. Write short notes on Smart Utilities.	5M 5M	5	L2
	OR			
20	A. Write in brief about business models. B. What are common business problems? Explain with an example.	5M 5M	5	L2