



# ACE

## Engineering College

(An Autonomous Institution)

Question Paper Code:

CD502PC

ACE-R20

### Semester End Examination

#### III B. Tech- I Semester Regular & Supplementary - March-2024

#### INTRODUCTION TO DATA SCIENCE

#### COMPUTER SCIENCE AND ENGINEERING-DATA SCIENCE

Time: 3 Hours

Max. Marks: 70

H. T. No										
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Note: This question paper contains two parts A and B.

Part A is compulsory which carries 20 marks. Answer all questions in Part A.

Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions

## PART- A

MARKS: 10\*2=20

Q.No: 1

Question

Marks

- |    |  |   |
|----|--|---|
|    | <p style="font-size: small; margin: 0;">Arankushapur (V), Ghalakesar(M), Medchal Dist. - 501301, T.S., INDIA</p> |   |
| a) | What is Big data?  | 2 |
| b) | What is Overfitting?   | 2 |
| c) | Define an attribute?   | 2 |
| d) | What is dispersion of data?  | 2 |
| e) | Define vector and how to create a vector in R  | 2 |
| f) | How to sort the Data frames in R   | 2 |
| g) | Describe Logical operators in R with example.  | 2 |
| h) | What is function scoping?  | 2 |
| i) | What are the advantages of data reduction?   | 2 |
| j) | List the pixel-oriented visualization techniques   | 2 |

PART- B

MARKS: 5\*10=50

Q.No	Question Description	Marks
2.	a. What is Big data and Data science Hype? b. What are the skills required for data scientist job	5 5
	(OR)	
3	Explain the normal probability distributions with neat diagrams	10
4	a. Demonstrate Discrete vs Continuous attributes b. How to measure the central tendency of data	5 5
	(OR)	
5.	Explain the four main types of attributes	10
6	Perform the following operation in data frame: a. Write a R program to add a new column in a given data frame. b. Write a R program to add new row(s) to an existing data frame. c. Write a R program to drop column(s) by name from a given data frame.	10
	(OR)	
7	a. Write a R program to add 3 to each element of the first vector. Print the original and new vector. b. Write a R program to reverse the order of given vector	5 5
8	a. Explain the relational operators with suitable examples in R b. Demonstrate conditional statements in R	5 5
	(OR)	
9	Demonstrate the different iterative statements in R with example program.	10
10	Discuss the data reduction strategies.	10
	(OR)	
11	Illustrate Hierarchical visualization techniques and Icon based visualization techniques	10