

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)

B.Tech. III Year II Semester Regular & Supplementary Examinations June-2025
DATA ANALYTICS USING R

(Computer Science & Information Technology)

Time: 3 Hours

Max. Marks: 60

(Answer all Five Units 5 x 12 = 60 Marks)

UNIT-I

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|---|---|--|-----|----|----|
| 1 | a | Explain the needs of Data Analytics. | CO1 | L3 | 6M |
| | b | Find the mean, median and mode of the following data:
23, 57, 24, 49, 31, 37, 10, 30, 57, 40, 35, 16, 57, 29, 03, 40. | CO1 | L2 | 6M |

OR

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|---|---|---|-----|----|----|
| 2 | a | Discuss the benefits of Big Data. | CO1 | L4 | 6M |
| | b | The scores for nine students in history and algebra are as follows:
History: 35, 23, 47, 17, 10, 43, 9, 6, 28
Algebra: 30, 33, 45, 23, 8, 49, 12, 4, 31
Compute the Spearman rank correlation. | CO1 | L2 | 6M |

UNIT-II

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|---|---|--|-----|----|----|
| 3 | a | Explain the T-test in detail. | CO2 | L3 | 6M |
| | b | Discuss in detail about the comments in R. | CO2 | L2 | 6M |

OR

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|---|---|--|-----|----|----|
| 4 | a | Explain the different types of Operators in R. | CO2 | L4 | 6M |
| | b | Write a R program to do all the arithmetic operations. | CO2 | L2 | 6M |

UNIT-III

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|---|---|--|-----|----|----|
| 5 | a | Illustrate the output statements with example. | CO3 | L3 | 6M |
| | b | Explain the objects in R language with appropriate examples. | CO3 | L2 | 6M |

OR

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|---|---|---|-----|----|----|
| 6 | a | Write a R program to find sum of natural numbers. | CO3 | L4 | 6M |
| | b | Create a R program to display Fibonacci series. | CO3 | L2 | 6M |

UNIT-IV

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|---|---|---|-----|----|----|
| 7 | a | Explain vector indexing with an example. | CO4 | L4 | 6M |
| | b | Write a R program to obtain the length of the vector. | CO4 | L3 | 6M |

OR

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|---|---|---|-----|----|----|
| 8 | a | Explain the functions of Vectors in R. | CO4 | L4 | 6M |
| | b | What is a matrix in R ? Explain how to create a matrix. | CO4 | L2 | 6M |

UNIT-V

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|---|---|---|-----|----|----|
| 9 | a | How to access the elements of a list ? Explain | CO5 | L3 | 6M |
| | b | Explain some operations of list data type in R with examples. | CO5 | L2 | 6M |

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|----|---|--|-----|----|----|
| 10 | a | Discuss the Import & Export of data in excel files with suitable examples. | CO5 | L4 | 6M |
| | b | Explain why R is preferred over Python in data visualization. | CO5 | L2 | 6M |

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