Code No: 126UA

**R15**

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**
B. Tech III Year II Semester Examinations, December - 2018
**INTRODUCTION TO ANALYTICS**
(Common to CSE, IT)

Time: 3 hours                                                                  Max. Marks: 75

**Note:** This question paper contains two parts A and B.
Part A is compulsory which carries 25 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

**(25 Marks)**

| | | |
|---|---|---|
| 1.a) | What are the challenges in analysis of data? | [2] |
| b) | Justify R has a data analytics software. | [3] |
| c) | List the types of variables available in R. | [2] |
| d) | Define effective communication skills. | [3] |
| e) | What is R connector? | [2] |
| f) | Give the uses of NOSQL databases. | [3] |
| g) | How correlation is used for data analysis? | [2] |
| h) | Expand ANOVA and list its unique features | [3] |
| i) | What type of data analysis is feasible for automating department activities? | [2] |
| j) | Name different business problems related to various businesses. | [3] |

## PART - B

**(50 Marks)**

| | | |
|---|---|---|
| 2.a) | Explain R data frames with example. | |
| b) | Write a R program for matrix multiplication. | [5+5] |

**OR**

| | | |
|---|---|---|
| 3.a) | What are the looping structures available in R? | |
| b) | How to you find outliers in R? | [5+5] |

4.     What is summarization of data? Explain different types of summarization in R.    [10]

**OR**

5.     Give an account on probability distribution and its computation in R.    [10]

6.     Write a R program to illustrate database connectivity.    [10]

**OR**

7.     Write about stored procedures in NOSQL. Explain with examples.    [10]

8.     Explain regression analysis. Give example.    [10]

**OR**

| | | |
|---|---|---|
| 9.a) | Justify the importance of correlation for prediction. | |
| b) | Explain OLS regression. | [5+5] |

10.    Write short note on understanding engineering design and manufacturing.    [10]

**OR**

11.    Compare and contrast the manufacturing and production activities data analysis with respect to technology.    [10]

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