

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
MCA - SEMESTER-IV EXAMINATION WINTER-2018

Subject Code:3640005

Date:27-11-2018

Subject Name: Data Analytics with R Programming

Time: 10.30 AM to 1.00 PM

Total Marks: 70

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1 (a)** Answer the following questions. **07**
- i) Which function helps to perform sorting in R language?
 - ii) Which function is used to create histogram visualization in R programming language?
 - iii) Write the syntax to set the path for current working directory in R environment.
 - iv) What is the workspace in R?
 - v) Why library () function is used?
 - vi) What is the use of par () function?
 - vii) What will be the class of the resulting vector if you concatenate a number and a character?
- (b)** What is Data Analytics? Explain types of Data Analytics. **07**
- Q.2 (a)** Write short note on applications of Data Analytics. **07**
- (b)** Explain following decision making statement in R. **07**
- (i) if_else statement (ii) switch statement
- OR**
- (b)** What is Data Frame? Explain the functionality of Data frame with example **07**
- Q.3 (a)** Write R script to create data frame “student” with the fields of stud_id, stud_name, email_id and mobile_no. Perform following operations: (i) Display summary of data frame (ii) Display structure of data frame (iii) Extract and display only stud_name and mobile_no from data frame **07**
- (b)** What is Graph? Explain Graphical Elements in detail **07**
- OR**
- Q.3 (a)** Write an R script to read a csv file consisting of numeric data and print maximum, minimum, sum, mean, median and mode of the data on screen. **07**
- (b)** Explain pie() function with all parameters with example. **07**
- Q.4 (a)** What is Prediction? Differentiate Random Forest and Decision Tree. Which decision model is best for Decision Making? **07**
- (b)** What is Survival Analysis? Give syntax of Surv () and survfit() function. **07**
- OR**
- Q.4 (a)** Explain Time Series Analysis in detail with example. **07**
- (b)** What is Linear Regression? Give steps to establish a Linear Regression in R. Explain lm() function with example. **07**
- Q.5 (a)** Write steps of creating employee.csv file (emp_name, organization, mobile_no, email, salary, experience, and city) which contains 5 randomly selected records. Write R script to read data from employee.csv and display it into R workspace. **07**

- (b) What is Object? How to convert one object form to another object form? **07**
- OR**
- Q.5** (a) What is Prescriptive Analytics? Explain data creation for analytics through designed experiments **07**
- (b) What is the purpose of using Next and Break statements in R language? **07**
