

GUJARAT TECHNOLOGICAL UNIVERSITY**MCA Integrated- SEMESTER– VIII EXAMINATION – WINTER 2019****Subject Code: 4480602****Date: 18/11/2019****Subject Name: Data Analytics with R****Time: 02:30 PM TO 05:00 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) Explain data analytics with its various applications. **07**
 (b) Explain data type in detail with example. **07**
- Q.2** (a) What is vector? How it can be created in R? Explain index vector by using suitable example. **07**
 (b) What is data frame? Explain the functionality of data frame with example. **07**
- OR**
- (b) i. What is variable? How to assign a value to a variable and removing variable in R? **04**
 ii. Explain classification of data in detail. **03**
- Q.3** (a) List out various Graphs available in R. Explain Histogram, BoxPlot and Line Graph in details. **07**
 (b) What is list? Explain it to create and access elements of it with suitable example. **07**
- OR**
- Q.3** (a) Explain reading and writing csv and JSON file with appropriate packages. **07**
 (b) What is Object? How to convert one object form to another object form? **07**
- Q.4** (a) What is Binomial Distribution? Explain functions used to execute Binomial Distribution with example. **07**
 (b) What is prediction? Differentiate random forest and decision tree. Which decision model is best for decision making? **07**
- OR**
- Q.4** (a) What is Regression? Explain Multiple Regression and Logistic Regression in details. **07**
 (b) What is an array? Explain various ways to create an array in R. **07**
- Q.5** (a) Explain Creating data for analytics through reinforcement learning in detail. **07**
 (b) Explain linear models with example. **07**
- OR**
- Q.5** (a) Explain various control structure in R with sample example code. **07**
 (b) Write an R script that will receive N numbers and calculate mean, standard deviation, minimum and maximum. Plot bar chart of input numbers. **07**
