## BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI (END SEMESTER EXAMINATION)

CLASS: MBA SEMESTER: IV
BRANCH: MBA SESSION: SP/2023

SUBJECT: MT551 DATA SCIENCE USING R

TIME: 3 Hours FULL MARKS: 50

## **INSTRUCTIONS:**

- 1. The question paper contains 5 questions each of 10 marks and total 50 marks.
- 2. Attempt all questions.
- 3. The missing data, if any, may be assumed suitably.
- 4. Before attempting the question paper, be sure that you have got the correct question paper.
- 5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.

BLCO Discuss why R is important in data analytics? Also write the names and usage of some [5] CO1 Q.1(a) BL2 useful packages of R. Q.1(b) State how basic computation in R is done with the help of examples. [5] CO1 BL<sub>2</sub> Q.2(a) Explain various data types available in R. [5] CO2 BL3 Q.2(b) Explain with proper example, one of the following control structure: [5] CO2 BL3 for loop or while loop Q.3(a) State the concept of missing values. How do you deal with them in R. [5] CO3 BL<sub>1</sub> Q.3(b) Differentiate between categorical and continuous variables with the help of proper [5] CO3 examples. Q.4(a)Illustrate any two data manipulation functions in R. [5] CO4 BL3 Evaluate and explain the outcome of following R commands. Q.4(b) [5] CO4 BL4 library(dplyr) stats <- data.frame(player=c('A', 'B', 'C', 'D'), runs=c(100, 200, 408, 19), wickets=c(17, 20, NA, 5)) filter(stats, runs>100) Q.5(a) Compose a linear regression equation with your own data set. CO5 BL5 Q.5(b) Construct a decision tree with your own data set. [5] CO5 BL5

:::::03/05/2023:::::M