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52 (4) ITB-SE-4034

2024

R PROGRAMMING

Paper : ITB-SE-4034

Full Marks : 50

Time : Two hours

**The figures in the margin indicate
full marks for the questions.**

1. Answer the following questions : $2 \times 5 = 10$
 - (a) What are mean and mode ?
 - (b) What is Mapply ?
 - (c) Write about vectors in R.
 - (d) Write the syntax of if-else statement in R with example.
 - (e) What is S3 class in R ?

Contd.

2. Answer the following questions : **(any four)**

5×4=20

- (a) Explain about different loops in R-programming.
- (b) Write a R program that test whether a string is a palindrome string or not.
- (c) Briefly explain about the debugging tools in R-programming.
- (d) Write a function that returns the largest element in a list.
- (e) Write a R-code to implement linear search.
- (f) Briefly explain about history and overview of R-programming.

3. Answer the following questions : **(any two)**

10×2=20

- (a) Briefly explain about variables, constants and basic data types in R-programming.
- (b) Write a program in R that prints multiplication table of numbers up to 12.

(c) Write a R-code to implement selection sort and bubble sort algorithms.

(d) Explain about different functions in R-programming with example.
