Seat No.	

SW-119

Total No. of Pages : 02

B.C.A. (CBCS) Part-III (Semester-VI)

Examination, March 2024.

R PROGRAMMING

Sub. Code : 88296

Day and Date: Wednesday, 27-03-2024 **Total Marks: 70**

Time: 02.30 p.m. to 05.30 p.m.

Instructions:
1) **Q.1 and Q.6 are compulsory.**
2) **Attempt ANY THREE questions from Q.2 to Q.5.**
3) **Figures to the right indicate full marks.**
3) **Draw a diagram where it is necessary.**

Q.1 Choose the correct answer in each of the following questions. **(10)**

1) Which function is used to draw points (markers) in a diagram?
(A) d() (B) draw() (C) plot() (D) canvas()

2) The following values: 10.5, 55 and 787, belongs to which data type?
(A) numeric (B) integer (C) complex (D) All of these

3) Which operator can be used to compare two values?
(A) = (B) <> (C) == (D) ><

4) How do you call a function in R?
(A) my_function() (B) my_function;
(C) my_function[] (D) (my_function);

5) What is the correct way to create a vector of strings?
(A) fruits <- v("banana", "apple", "orange")
(B) fruits <- c("banana", "apple", "orange")
(C) fruits <- list("banana", "apple", "orange")
(D) fruits <- listOF("banana", "apple", "orange")

6) A ..... is a variable that holds one value at a time.
(A) High (B) Vector
(C) Duplex (D) Scalar variable

7) What will be the output of the following R code?

sqrt(-17)

(A) NaN (B) 3.67 (C) 4.02 (D) −4.02

8) Which function takes a dim attribute which creates the required number of dimensions?

(A) Array (B) Lists (C) Matrix (D) Vector

9) Which statement is used to stop a loop?

(A) stop (B) exit (C) break (D) return

10) Which function is often used to concatenate elements?

(A) join() (B) merge() (C) paste() (D) concat()

Q.1 b) Attempt ANY TWO questions. **(10)**

1) Explain variables and constants in R Programming.
2) Illustrate String manipulation.
3) Describe basic operations on data frames.

Q.2 Write program to convert Decimal number into Binary number using Recursion in R. **(10)**

Q.3 What is a Matrix? Explain different operations on Matrices with an example. **(10)**

Q.4 What is user defined function? Explain formal and actual arguments in detail. **(10)**

Q.5 Illustrate any five Built-in function in R with an example. **(10)**

Q.6 Write short notes. (Any four) **(20)**

1) User input in R programming
2) Extracting a subset of a data frame.
3) Bar plot
4) Named arguments in function
5) If...else
6) Vectors in R.