

Seat No. 6176

QP-4399

Total No. of Pages : 3

MAR-APR 2025 SUMMER EXAMINATION
11949 Bachelor of Computer Application(BCA) NEP 2.0

Sub. Name: R Programming

Sub. Code: 111001/110749/96658

Total Marks: 80

Day and Date: APRIL, 22-04-2025

Time: 02:30 PM To 05:30 PM

Instructions: 1. Figures to the right indicate full marks

Special Inst.: 1) Que. No.1 and Que. No. 8 are compulsory
2) Attempt any three Questions from Que. No.2 to Que. No. 7.

[12]

Q1) Solve following MCQ.

- i. Which function takes a dim attribute that creates the required number of dimensions?
A. Array
B. Lists
C. Matrix
D. Vector
- ii. Which are indexed by either row or column using a specific name or number?
A. Data frames
B. Data
C. Datasets
D. Functions
- iii. Data frames can be converted to a matrix by calling data _____.
A. as.matrix()
B. as.matr()
C. as.mat()
D. as.max()
- iv. Which of the following extracts first element from the following R vector?
x <- c("a", "b", "c", "c", "d", "a")
A. x[0]
B. x[1]
C. x[2]
D. x[10]
- v. Who is introduced R Programming Language?
A. Ross Ihaka
B. Robert Gentleman
C. Both (A) and (B)
D. Florian Hahne

[1]

P.T.O.



- vi. Which function is used to add additional columns in a matrix?
- A. add()
 - B. cbind()
 - C. join()
 - D. append_item()
- vii. Which function can be used to return the square root of a number?
- A. sr()
 - B. sqrtroot()
 - C. sqrt()
 - D. square_root()
- viii. What will be the output of the following R code?
- ```
> x <- 1
> print(x)
```
- A. 1
  - B. 2
  - C. 3
  - D. 4
- ix. R has how many atomic classes of objects?
- A. 5
  - B. 4
  - C. 3
  - D. 2
- x. \_\_\_\_\_ function returns a vector of the same size as x with the elements arranged in increasing order.
- A. orderby()
  - B. sort()
  - C. orderasc()
  - D. sequence()
- xi. Which of the following is used to install packages in R?
- A. include()
  - B. library()
  - C. require()
  - D. install.packages()
- xii. Which function is used to read a CSV file into R?
- A. read.csv()
  - B. read\_csv()
  - C. load.csv()
  - D. import.csv()

- Q2) Explain in detail the variables, constants, and operators in R. [16]
- Q3) Explain different conditional statements used in R programming. [16]
- Q4) [16]
- a. Explain argument and lazy evaluation of functions with an example. [8]
- b. Explain Recursive functions with an appropriate example. [8]
- Q5) What is data visualization? Explain bar plot and line plot with an appropriate example. [16]
- Q6) What is a Data Frame? Explain any five operations on a Data Frame. [16]
- Q7) Write a program to accept a number and check given number is prime or not. Also, find factorial of a given number. [16]
- Q8) Write notes on (Any Four) [20]
- a. Vector Arithmetic
- b. paste ()
- c. 3D pie chart
- d. Array
- e. Matrix transpose
- f. Real-world uses of R

## End Of Question Paper

**Important Note for Chief Exam Officer / SRPD Coordinator / Sr Supervisor/ Student -**

This Question Paper may be distributed for following Subjects as common code.

सदरची प्रश्नपत्रिका खालील विषयांकरिता वितरित करता येईल.

- 1] (717) Bachelor of Computer Application (111001) R Programming Part 3 SEM 6
- 2] (7810) B.C.A. (CBCS) (110749) R Programming Part 3 SEM 6
- 3] (7824) Bachelor of Computer Application (CBCS)NEP (96658) R Programming Part 3 SEM 6