

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BCom DEGREE EXAMINATION DECEMBER 2023
(Fourth Semester)

Branch – COMMERCE (BUSINESS ANALYTICS)

R PROGRAMMING

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks (5 x 1 = 5)

1. What is R?
i) A statistical programming language ii) A spreadsheet program
iii) A web development language iv) An operating system
2. What will be the output of the following R code?
> m <- matrix(nrow = 2, ncol = 3)
> dim(m)
i) 2 2 ii) 2 3 iii) 3 2 iv) 4 5
3. By what function we can create data frames?
i) Data.frames() ii) Data.sets () iii) Function () iv) C ()
4. Which of the following finds row sums for each level of a grouping variable?
i) as.numeric(x)
ii) rowsum(x, group, reorder = TRUE, ...)
iii) as.order(x)
iv) colSums (x, na.rm = FALSE, dims = 1)
5. The graph can be saved as a pdf object in the local working space using _____ function.
i) pdf() ii) plot() iii) curve() iv) supply()

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks (5 x 3 = 15)

6. a Explain about R Commands with examples.
OR
b How to generate regular sequence in R with example?
7. a Classify about Ordered and Unordered Factors.
OR
b Illustrate about apply() function in R with suitable example.
8. a How to reading data from Files? Explain.
OR
b How to loading Data from Other R Packages?
9. a Illustrate about Grouped Expressions.
OR
b Explain about Repeat Loop in R Programming with example.
10. a Discuss in detail about the following functions in Graphs
i) plot() ii) abline() iii) points() iv) legend()
OR
b Explain about various Mathematical annotation in R Programming.

Cont...

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks (5 x 6 = 30)

11. a Discuss in detail about Functions and Features of R Programming.
OR
- b Examine the following
- i) Character Vector
 - ii) Index Vector
12. a Analyze the following in R
- i) tapply ()
 - ii) Ragged Arrays
- OR
- b Write a R program to create two 2x3 matrix and add, subtract and multiply the matrices.
13. a Demonstrate about how to Constructing and Modifying Lists in R Programming?
Explain with example.
OR
- b Explain the following in Data Frames
- i) attach() function
 - ii) detach() function
14. a Write R program to check whether the given number is ODD or EVEN.
OR
- b Explain the following with example
- i) For Loop
 - ii) While Loop
15. a Classify about High Level plotting Functions and its arguments in R Programming.
OR
- b Explain the following in R Programming
- i) Using Graphics Parameters
 - ii) Graphics Parameters List

Z-Z-Z

END