PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2025
(Sixth Semester)

Branch – **INFORMATION TECHNOLOGY**

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 Find a key data structure in statistics and in R.
(i) data (ii) package
(iii) data frame (iv) select

2 Which method is used to pass data around by de-parsing the R object?
(i) read() (ii) dget()
(iii) write() (iv) dput()

3 What will be the output of the following R function? Sys.Date()
(i) Present Date (ii) Yesterday Date
(iii) Tomorrow Date (iv) Some Date

4 Which control structure in R is used to execute a block of code repeatedly until a condition is met?
(i) if-else loop (ii) while loop
(iii) for loop (iv) do-while loop

5 Which code is used for box and whisker plot in R?
(i) abline() (ii) scatter.smooth()
(iii) boxplot() (iv) plot()

SECTION - B (15 Marks)
Answer **ALL** Questions
ALL Questions Carry **EQUAL** Marks (5 x 3 = 15)

6 a Narrate the limitation of R Programming.
OR
b Explain data frame in R.

7 a Explain read.table function in R.
OR
b Show the salient feature of readr package.

8 a Prepare short notes on times in R.
OR
b Explain filter() package in R.

9 a Explain for loop statement in R.
OR
b Describe about break statement.

10 a Outline the features of random sampling.
OR
b Explain scatter plots.

Cont...

SECTION -C (30 Marks)

Answer **ALL** questions

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

11 a Point out the steps to create a vector in R.

OR

b Classify the importance of list in R.

12 a Examine the functionalities of reading from and writing to data a file.

OR

b Discuss dput() and dump() functions.

13 a Point out the steps for extracting multiple elements of a list.

OR

b Analye the dplyr package in R.

14 a Summarise the concepts of if-else statement with example.

OR

b Highlight the importance of functions in R.

15 a Examine the features of the box-whisker plot function.

OR

b Discuss simple linear regression.

Z-Z-Z END