

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)

MCom(CA) DEGREE EXAMINATION DECEMBER 2025  
(Third Semester)

Branch – COMMERCE WITH COMPUTER APPLICATION

DATA VISUALIZATION

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(10 × 1 = 10)

| Module No. | Question No. | Question  | K Level | CO  |
|------------|--------------|---|---------|-----|
| 1          | 1            | Which of the following describes R language?<br>a) Free b) Paid<br>c) Available for free trial only d) Testing  | K1      | CO1 |
|            | 2            | Which is the basic data structure of R containing the same type of data?<br>a) Functions b) Array<br>c) Vector d) Lists   | K2      | CO1 |
| 2          | 3            | Matrices can be created by row-binding with the help of the following function.<br>a) rjoin() b) rbind()<br>c) rowbind() d) rbinding()  | K1      | CO2 |
|            | 4            | Which of the following statement can read csv files?<br>a) read.table(filename,header=TRUE,sep=',')<br>b) read.csv(filename,header=TRUE,sep=',')<br>c) read.tab(filename,header=TRUE,sep=',')<br>d) read.tab(filename,header=False,sep=',') | K2      | CO2 |
| 3          | 5            | Tell the four most frequently used types of data objects in R are vectors, matrices, data frames and _____.<br>a) Function b) Lists<br>c) Packages d) Interfaces  | K1      | CO3 |
|            | 6            | Which function is used to enter in data at the terminal?<br>a) Scanned<br>b) Scnn<br>c) Scan<br>d) Scen   | K2      | CO3 |
| 4          | 7            | Which of the following will be used in fancy plots?<br>a) New = T<br>b) New = J<br>c) New = K<br>d) New = L   | K1      | CO4 |
|            | 8            | Which function draws an axis on the current plot?<br>a) axis()<br>b) par()<br>c) mar()<br>d) jar()  | K2      | CO4 |
| 5          | 9            | _____ level plotting functions that add elements to an existing plot.<br>a) High<br>b) Low<br>c) Medium<br>d) Simple  | K1      | CO4 |
|            | 10           | ask=T is a parameter that R asks before producing the _____.<br>a) function<br>b) package<br>c) interface<br>d) graphics  | K2      | CO4 |

Cont...

**SECTION - B (35 Marks)**

Answer ALL questions

ALL questions carry EQUAL Marks (5 × 7 = 35)

| Module No. | Question No. | Question   | K Level | CO  |
|------------|--------------|--|---------|-----|
| 1          | 11.a.        | Explain the History of R.                                  | K2      | CO1 |
|            | (OR)         |  |         |     |
|            | 11.b.        | Construct the Data types in R programming.                 | K3      |     |
| 2          | 12.a.        | Illustrate the rbind and cbind Functions.                  | K2      | CO2 |
|            | (OR)         |  |         |     |
|            | 12.b.        | Identify the While and For Loop Statements.                | K3      |     |
| 3          | 13.a.        | Summarize the Construct and Modify the List.               | K2      | CO3 |
|            | (OR)         |  |         |     |
|            | 13.b.        | Develop the Scan() Function in R Programming.              | K3      |     |
| 4          | 14.a.        | Explain the Bar and Pie Chart with example.                | K2      | CO4 |
|            | (OR)         |  |         |     |
|            | 14.b.        | Construct the Common Arguments to chart function.          | K3      |     |
| 5          | 15.a.        | Illustrate the Arguments to High Level Plotting functions. | K2      | CO5 |
|            | (OR)         |  |         |     |
|            | 15.b.        | Explain the Hershey Vector Fonts.                          | K3      |     |

**SECTION -C (30 Marks)**

Answer ANY THREE questions

ALL questions carry EQUAL Marks (3 × 10 = 30)

| Module No. | Question No. | Question   | K Level | CO  |
|------------|--------------|--|---------|-----|
| 1          | 16           | Discuss the Arithmetic, Character, Logical and Index Vectors.    | K4      | CO1 |
| 2          | 17           | Explain the Control Structures with an example in R Programming. | K5      | CO2 |
| 3          | 18           | Discuss the List and Data Frames Operations.                     | K4      | CO3 |
| 4          | 19           | Explain the Basic Graphic Functions with example.                | K4      | CO4 |
| 5          | 20           | Estimate the High and Low Level Plotting Commands.               | K5      | CO5 |

Z-Z-Z

END