

SHRIMATHI DEVKUNVAR NANALAL BHATT VAISHNAV COLLEGE FOR WOMEN  
(AUTONOMOUS)

(Affiliated to the University of Madras and Re-accredited with 'A+' Grade by NAAC)  
Chromepet, Chennai - 600 044.

B.Sc.CGS- END SEMESTER EXAMINATIONS - APRIL 2025

SEMESTER - VI

**24UCGET6B02 - Introduction to Data Science**

Total Duration : 1 Hrs.30 Mins.

Total Marks : 40

### **Section B**

Answer any **TEN** questions ( $10 \times 2 = 20$  Marks)

1. What is Git?
2. What is Markdown?
3. Define RStudio.
4. How do you define a function in R?
5. Differentiate between lexical and dynamic scoping.
6. What is an API in Data Science?
7. What is the purpose of the gather () and spread () functions in R?
8. Define Exploratory Data Analysis (EDA).
9. What is correlation, and how is it represented visually?
10. Name two common multivariate statistical techniques used in EDA.
11. Define Reproducible Research.
12. What is meant by Literate programming?

### **Section C**

Answer any **FOUR** questions ( $4 \times 5 = 20$  Marks)

13. What is Markdown? Explain its role in data science
14. Describe the features and benefits of using R and RStudio in data science.
15. Describe control structures in R with examples.
16. What does 'Tidy Data' mean in data science?
17. How do you identify outliers in EDA?
18. What is the YAML header in an R markdown file and what is its role?

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