

MODEL QUESTION PAPER 1

Statistical Computing & R Programming

Time: 2.30 hours

Max Marks : 60

Section-A

I. Answer any 6 questions. Each question carries 2 marks: $(6 \times 2 = 12)$

1. Define R programming.
2. Write the statement to declare a numeric variable and print the value of the variable.
3. What is visibility in R.
4. Define package.
5. Write the applications of Student's T Distribution.
6. Define Gamma Distribution.
7. How is the Z-Test useful?
8. What is the use of specialized text and label notation?
9. What is Python Matplotlib?

Section-B

II. Answer any 4 questions. Each question carries 6 marks: $(4 \times 6 = 24)$

10. Differentiate between R and C programming.
11. Explain the different types of operators in R.
12. What is the use of Student's T- Distribution? Discuss with suitable examples.
13. Explain the data visualization techniques with neat diagrams.
14. Explain the different types of ANOVA technique.
15. Explain the Chi-Squared test.

Section-C

III. Answer any 3 questions. Each question carries 8 marks: $(3 \times 8 = 24)$

16. Create an R code to create and display the values of an array.
17. Explain the different types of array in R programming.
18. Explain the different types of ANOVA technique.
19. Explain the Chi-Squared test.
20. Differentiate between Type I and Type II errors.

MODEL QUESTION PAPER 2

Statistical Computing & R Programming

Time: 2.30 hours

Max Marks : 60

Section-A

I. Answer any 6 questions. Each question carries 2 marks: (6 x 2 = 12)

1. List the arithmetic operators in R.
2. List the assignment operators in R.
3. What is an exception? Give an example.
4. Write the syntax of for loop in R.
5. What is probability distribution? Mention its types.
6. What is Ordinal Logistic Regression?
7. What are the types of ANOVA technique?
8. Write a R Programming for changing the shape and color of a point.
9. Write the R statement to remove the box around the plot.

Section-B

II. Answer any 4 questions. Each question carries 6 marks: (4 x 6 = 24)

10. Explain the data frames in R with a suitable example.
11. Explain the classes in R with a suitable example.
12. What is the use of Student's T- Distribution? Discuss with suitable examples.
13. Explain the data visualization techniques with neat diagrams.
14. Explain the different types of hypotheses.
15. Explain the statistical power and its components.

Section-C

III. Answer any 3 questions. Each question carries 8 marks: (3 x 8 = 24)

16. Differentiate between try() and trycatch() statements.
17. Create an R function for computing simple interest.
18. Elucidate Probability distribution in detail.
19. Explain Bernoulli distribution with examples.
20. Differentiate between Z-test and chi-square test.



MODEL QUESTION PAPER 3

Statistical Computing & R Programming

Time: 2.30 hours

Max Marks : 60

Section-A

I. Answer any 6 questions. Each question carries 2 marks: (6 × 2 = 12)

1. Define vectors.
2. Write the statement to create an array.
3. Write the syntax for while loop in R.
4. What is timings in R.
5. List out the Probability Density Function.
6. How is significance level useful in hypothesis testing?
7. What is a 3D scatter plot?
8. What are the steps involved in linear model selection?
9. Define linear regression.

Section-B

II. Answer any 4 questions. Each question carries 6 marks: (4 × 6 = 24)

10. Explain the different types of plotting.
11. Differentiate between single and multidimensional arrays with an example of each.
12. What is the use of Student's T- Distribution? Discuss with suitable examples.
13. Explain the data visualization techniques with neat diagrams.
14. Explain the data visualization techniques with neat diagrams.
15. Explain the different types of hypotheses.

Section-C

III. Answer any 3 questions. Each question carries 8 marks: (3 × 8 = 24)

16. Differentiate between while loop and repeat loop.
17. Explain break and next statement in R with an example of each.
18. Define colors for plots. Discuss with examples.
19. List out various specialized text and label notations for plot.
20. Describe advanced graphics in statistical models in detail.

MODEL QUESTION PAPER 4

Statistical Computing & R Programming

Time: 2.30 hours

Max Marks : 60

Section-A

I. Answer any 6 questions. Each question carries 2 marks: $(6 \times 2 = 12)$

1. What is the difference between list and vectors?
2. What is plotting?
3. List the looping statements in R.
4. Define functions in R programming.
5. Expand PDF and PMF.
6. State Uniform Distribution.
7. Define statistical modeling.
8. Mention various types of statistical models.
9. What is sampling distribution?

Section-B

II. Answer any 4 questions. Each question carries 6 marks: $(4 \times 6 = 24)$

10. Explain the different conditional statements in R.
11. Explain the different looping statements in R.
12. Compare PMF and PDF in detail.
13. What is meant by the Goodness-of-Fit measure?
14. When will you apply linear regression and logistic regression techniques?
15. Discuss about the Binomial distribution in detail.

Section-C

III. Answer any 3 questions. Each question carries 8 marks: $(3 \times 8 = 24)$

16. Create a Map visualization in R with a suitable example.
17. Differentiate between bar and histogram plotting.
18. Describe statistical and probability in detail.
19. Write a detailed note on normal distribution and its properties.
20. Explain Linear regression in detail

MODEL QUESTION PAPER 5

Statistical Computing & R Programming

Time: 2.30 hours

Max Marks : 60

Section-A

I. Answer any 6 questions. Each question carries 2 marks:

(6 × 2 = 12)

1. What is coercion in R?
2. What is a data frame?
3. Write the input and output statements of R programming.
4. Write the syntax of if statement in R..
5. What are Type I and Type II errors?
6. What is Statistical power? How is it related to error?
7. What is ANOVA technique used for?
8. What is statistical testing? How is it useful?
9. What is linear regression?

Section-B

II. Answer any 4 questions. Each question carries 6 marks:

(4 × 6 = 24)

10. Explain the concept of reading and writing files in R.
11. Explain the different input and output statements in R.
12. What is exception handling? Write an R code to handle exceptions.
13. Explain the package in R with a suitable example.
14. What is the use of Student's T- Distribution? Discuss with suitable examples.
15. Explain the data visualization techniques with neat diagrams.

Section-C

III. Answer any 3 questions. Each question carries 8 marks:

(3 × 8 = 24).

16. Explain the different types of array in R programming.
17. Explain Probability Mass Functions in detail.
18. Explain the procedure for creating a statistical model.
19. Discuss about various types of Sampling distribution.
20. Write a detailed note on 3D scatter plot with suitable examples.