**Home Assignment-II**

**UNIT-I**

1. Purpose of Lower left pane in R Studio.
2. Purpose of Upper Left Pane
3. Purpose of Upper Right Pane
4. Purpose of lower right pane.
5. Ways to send and execute commands from the editor to the console.
6. To run the entire file of code.
7. Shortcut to move cursor to text editor
8. Shortcut to move cursor to console.
9. To move to the previous tab in the text editor.
10. To move to the next tab in the text editor.
11. What is a Project.
12. Options available for New project are?
13. Tools of R Studio
14. Package installation syntax.
15. Remove packages
16. Unload a package
17. If a function has significance in more than one package the representations is given by?
18. Define variable.
19. Assign a value to a variable.

20. Remove variable.

21. Data Types in R.

22. Use of class()

23. difference between nchar() and length()

24. Operations on vectors can be performed when?

25. what is a factor vector.

26. Difference between NA and NULL

27. Data frame?

28. use of head() and tail()

A. head()->displays the first six rows from top.

Tail()->displays the first six rows from bottom.

31. use of list

32. use of matrix.

33.Reading .csv file

34. Base Histograms.

35.base scatterplot

36. Boxplot

37. ggplot2 Histograms and Densities

38. ggplot2 Scatterplots

39. ggplot2 Boxplots and Violins Plots

40. ggplot2 Line Graphs

41. user defined functions?

42. default arguments?

43. Control Statements.

44. Compound Tests.

45. Loops

**UNIT-II**

1. apply functions types.
2. rowSums() and colSums()

3. na.rm=TRUE

4. lapply() and sapply()

5. mapply()

6. use of aggregate()

7. Input and output types for functions

8. data.table vs data.frame

9. Purpose of key?

10. cbind and rbind in data reshaping

11. Joins refer ppt for syntax.

12. dcast and melt

13. Difference between paste and sprint

14. cumsum(),cumprod()

15. setoperations.

**UNIT-III**

1. formula for normal distribution.
2. Use of rnorm()
3. Use of pnorm()
4. Use of qnorm()
5. Formula for binomial distribution
6. Use of rbinorm()
7. Use of dbinorm()
8. Use of pbinorm()
9. Use of qbinorm()
10. Formula for poisson distribution.
11. Use of rpois()
12. Use of summary()
13. Use of quantile()
14. Cor() and cov()
15. One-sample T-test() use? And syntax
16. Two-sample t-test() use and syntax
17. Paired two-sample t-test() use and syntax.
18. ANOVA full form and use?

**UNIT-IV**

1. Difference between linear and non-linear models.
2. What is the use of regression.
3. Linear regression syntax and use.
4. Use of predict()
5. Multiple regression syntax and use.
6. Predictor and response variables.
7. Logistic regression syntax and use.
8. Poisson regression syntax and use.
9. Non-linear least square use and syntax.
10. Splines use and syntax.
11. Generalized additive models use and syntax.
12. Decision tree vs random forest
13. Autoregressive moving average use
14. Var use
15. Garch use
16. Clustering?
17. K-means?
18. K-mediods?
19. K-means vs k-mediods?
20. Dendograms?
21. Hierarchical clustering?

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| SNO | Rollnumber | UNIT |
| 1 | 66,67,68,69,70 | UNIT-1 (1-15) |
| 2 | 71,72,73,74,75 | UNIT-1 (16-30) |
| 3 | 76,77,78,79,80 | UNIT-1 (31-45) |
| 4 | 81,82,83,84,85 | UNIT-2 (1-7) |
| 5 | 86,87,88,89,90 | UNIT-2(8-15) |
| 6 | 91,92,93,94,95 | UNIT-3(1-9) |
| 7 | 96,97,98,99,AO | UNIT-3(10-18) |
| 8 | A1,A2,A3,A4,A5 | UNIT-4(1-11) |
| 9 | A6, A8, A9, B0, B1 | UNIT-4(12-21) |
| 10 | B2, B3, B4, B5, B6 | UNIT-1 (1-15) |
| 11 | B7, B8, B9, C0, C1 | UNIT-1 (16-30) |
| 12 | C2, C3, C4, C5, C6 | UNIT-1 (31-45) |
| 13 | C7, C8, Le7, Le8, Le9 | UNIT-2 (1-7) |
| 14 | Le10, Le11, Le12 | UNIT-2(8-15) |