Reg. No..... Name 26U309

BA, BSC, BCOM DEGREE END SEMESTER EXAMINATION - APRIL 2026

UGP (HONS) SEMESTER - 2 : MULTI DISCIPLINARY COURSE

COURSE : 24USTAMDC201 - STATISTICAL DATA ANALYSIS USING EXCEL/R
(Regular 2025 Admission)

Time: 1.5 hrs **Max Marks: 50**

(***Use of ordinary calculator and statistical tables are permitted)***

PART A
(Maximum marks from this part is 10. Each question carries 2 marks)

1. Define quantitative and qualitative data. (CO 1, U)
2. Explain ordinal and ratio scales with one example each. (CO 1, U)
3. Point out two situations where mode is a good average. (CO 2, R)
4. Define coefficient of variation. (CO3, U)
5. Define median for raw data. (CO 2, U)
6. List out the functions for visualizing histogram and bar diagram in R. (CO 1, R)
7. Explain the terms (i) level of significance (ii) critical region (CO 4, U)
8. Distinguish between Null and alternative hypotheses. (CO 4, U)

PART B
(Maximum marks from this part is 20. Each question carries 5 marks)

9. Write the points to be noted while drafting a good questionnaire? (CO 1, R)
10. A student got marks equal to 80. Construct an R program for executing the following information:
    "Excellent" if marks ≥ 90
    "Good" if marks ≥ 75
    "Average" if marks ≥ 50
    "Fail" otherwise. (CO 2, A)
11. Describe the different steps involved in testing of hypothesis. (CO 4, U)
12. Construct an R program to draw a bar chart showing rice production of different countries in 2017-2018(in metric tons).

Country	Production of rice in 2017-18 (in metric tons)
China	149
India	113
Indonesia	37
Bangladesh	33
Vietnam	28
Thailand	20

(CO 1, A)

13. Calculate standard deviation for the following data.
    34, 35, 34, 38, 45, 45, 38, 39, 44, 47. (CO 3, A)

14. The following data gives number of chillies per plant. Construct an R program to calculate mean deviation about mean: 8, 10, 23, 29, 18, 12 (CO 3, A)

PART C

(Maximum marks from this part is 20. Each question carries 10 marks)

15. Explain any 3 methods of collecting primary data. (CO 1, U)
16. An insurance agent has claimed that the average age of policy holders who insure through him is less than the average for all agents, which is 30.5 years. A random sample 100 policy holders who had insured through him give the following age distribution.

Age	:	15-20	20-25	25-30	30-35	35-40
No. of persons:		12	22	20	30	16

Compute median of the age distribution. (CO 2, A)

17. Explain the method of paired sample t - test. (CO 4, U)
18. 1000 students at college level are graded according to their I.Q. and their economic conditions. Construct R program to test whether there is any association between economic conditions and level of I.Q (5% level of significance).

		IQ Level		
		Poor	average	good
Income Level	Poor	150	100	50
	average	200	150	150
	good	50	100	50

(CO 4, A)