

22U446

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Name:

Reg.No:

FOURTH SEMESTER B.Sc. DEGREE EXAMINATION, APRIL 2024
(CBCSS - UG)
(Regular/Supplementary/Improvement)
CC19U STA4 C02 - STATISTICAL TECHNIQUES FOR PSYCHOLOGY
(Statistics - Complementary Course)
(2019 Admission onwards)

Time : 2.00 Hours

Maximum : 60 Marks

Credit : 3

Part A (Short answer questions)

Answer *all* questions. Each question carries 2 marks.

1. What is the use of analysis of variance?
2. Write down the test statistic for chi-square goodness of fit.
3. Write down the null hypothesis of test for independence of attributes.
4. What do you mean by independence of attributes and association of attributes?
5. How do you carry out your inference in a sign test?
6. Write down the test statistic for two sample sign test.
7. What is meant by a run?
8. What is H test?
9. State advantages of factorial experiment over a simple experiment.
10. Write the interaction effects of 2^2 factorial design.
11. What is split-half method of reliability?
12. What is content validity?

(Ceiling: 20 Marks)

Part B (Short essay questions - Paragraph)

Answer *all* questions. Each question carries 5 marks.

13. Fill in the following ANOVA table.

Source	sum of square	df	mean sum of square
Error	250	-----	-----
Treatment	101	9	-----
Total	-----	18	

14. Distinguish between parametric and non-parametric tests.
15. Explain the test procedure for two sample Wilcoxon signed test.
16. Explain the test procedure for rank sum test.
17. Explain the procedure in 2^3 factorial design.
18. Explain different scores of measurement.
19. Explain various scales of measurement.

(Ceiling: 30 Marks)

Part C (Essay questions)

Answer any *one* question. The question carries 10 marks.

20. The following data present the number of units of production per day turned out by 5 different workers using 4 different types on machines.

Workers/Machine Type	A	B	C	D
1	44	38	47	36
2	46	40	52	43
3	34	36	44	32
4	43	38	46	33
5	38	42	49	39

- a. Test whether the mean productivity is same for the different machine types.
 - b. Test whether the 5 men differ with respect to mean productivity.
21. Explain the steps involved in the construction of a questionnaire.

(1 × 10 = 10 Marks)
