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.
M.Sc.Psychology - END SEMESTER EXAMINATIONS APRIL - 2024
SEMESTER - II
22PCPCT2005 - **Advanced Statistics in Psychology**

Total Duration : 2 Hrs. 30 Mins.   Total Marks : 60

Section B

Answer any **SIX** questions $(6 \times 5 = 30$ Marks)

1. Describe the characteristics of normal curve with suitable diagram.

2. Illustrate any two of the following in about 100 words.
   a) Multiple regression
   b) Confirmatory factor analysis
   c) Structural equation modelling

3. Compute Mann-Whitney U-test for the following data.
   Team A: 7 18 20 34 23 28 48 43 55
   Team B: 16 8 37 31 35 40 42 50 52 44

4. Classify the procedure for calculating the Analysis of variance.

5. Describe the level of significance between means with examples.

6. Define multivariate analysis of variance (MANOVA). When is it used? Give an example.

7. Explain parametric and non-parametric tests. Describe the advantages and disadvantages of non-parametric tests.

8. Examine the assumptions underlying the analysis of variance.

Section C

I - Answer any **TWO** questions $(2 \times 10 = 20$ Marks)

9. Describe the Meaning and types of correlations. Differentiate between positive and negative correlation.

10. State your understanding of the following:-
    What do we mean when we say that a statistical result is significant?
    What is the difference between a statistically significant and a meaningful result?
    Why is statistical significance important?

Contd...

11. Justify the purpose of regression analysis and the types of regression.

12. Distinguish the chi-square goodness-of-fit test. Provide a detailed explanation of what this test measures.

<center>II - Compulsory question $(1 \times 10 = 10$ Marks$)$</center>

13. In statistics, what is ANOVA? Give an example. Criticize the three statistical conditions required for ANOVA.

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