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5. Briefly explain One tailed and two tailed hypotheses.

(3)

6. What do you mean by confidence intervals?

(3)

[This question paper contains 8 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 5207

H

Unique Paper Code : 2112112403

Name of the Paper : Inferential Statistics in Psychology

Name of the Course : B.A. (H) Applied Psychology-DSC

Semester : IV

Duration : 3 Hours

Maximum Marks : 90

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. This paper consists of **three** sections.
3. Attempt a total of **eleven** questions: **three** questions each from **Section A** and **B**, and **five** questions from **Section C**.
4. Use of simple calculator is allowed.

Section A (45 Marks)*(Any 3 questions out of 5)*

1. A psychologist devices stress management strategy for male and female managers. Following scores were obtained after applying stress management strategy to both males and females : (15)

	Male Managers	Female Managers
Mean	40	50
Standard Deviation	9	11
Sample Size	40	40

Test the difference between mean scores of males and female managers on stress management competency score at .05 and .01 level of significance. Also compute the 90% confidence interval for the population mean difference.

4. Explain the characteristics of Student's t-distribution and ANOVA. What is the relationship between "t" and "F"? (10)
5. Describe the errors in hypotheses testing. Briefly explain the power of a test. (6,4)

Section C (15 Marks)*(Any 5 questions out of 6)*

1. Assumptions underlying Chi-square (3)
2. When do you retain and when do you reject the null hypothesis? (3)
3. What do mean by degrees of freedom? (3)
4. Standard error (3)

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Test the hypothesis of equal probability using Chi-square test and state the results at 0.05 level of significance. (15)

Section B (30 Marks)

(Any 3 questions out of 5)

1. Differentiate between parametric and non-parametric tests. Give examples for both. (10)
2. What is a Random Sampling Distribution of Means, explain its characteristics and assumptions. (10)
3. Discuss in detail the various steps involved in hypothesis testing. (10)

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2. Three groups were assessed on career decision making scale. Following are the scores obtained by them. Using one way ANOVA find out the significance of mean difference at .05 level. (15)

Group I	Group II	Group III
5	3	9
6	5	8
7	6	7
7	7	6
6	4	7

3. A sample of 100 men and 120 women were surveyed to understand their attitude towards electoral bond. The data obtained is as follows :

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	Agree	Undecided	Disagree
Men	40	25	35
Women	30	30	40

Test the hypothesis that attitude towards electoral bond is independent of sex of the participants at .05 level of significance. (15)

4. A group of 30 students appearing for a competitive exam were compared on their time management skill scores before and after the training workshop. The correlation value between before and after the training workshop sessions was 0.55 and the values obtained are as follows : (15)

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	Before workshop	After workshop
Mean	70	65
SD	17	15

Set up a null hypothesis and a directional hypothesis, evaluating t at 0.01 level of significance.

5. A group of 120 students were asked about their attitude towards privatization of public sector companies. Following is the data obtained :

	Agree	Undecided	Disagree
Observed frequency	60	20	40

P.T.O.