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(FYUGP)

(2nd Semester)

PSYCHOLOGY

(MAJOR)

Paper : C-PSY-04

**(Statistical Methods for Psychological
Research—I)**

Full Marks : 75

Pass Marks : 40%

Time : 3 hours

*The figures in the margin indicate full marks
for the questions.*

1. (a) Discuss scales of measurement and explain their significance in statistical analysis.

15

Or

- (b) Explain the uses of frequency distribution in statistical analysis. The following scores were obtained by 30

students in a psychology test. Construct a grouped frequency distribution and calculate the cumulative and cumulative percentage frequency :

$$5+10=15$$

42, 45, 50, 55, 60, 65, 70, 72, 75, 80,
82, 85, 90, 95, 48, 52, 58, 62, 67, 69,
73, 77, 81, 84, 88, 91, 94, 49, 53, 57

2. (a) Explain different methods of graphical representation of data and their uses in psychology.

15

Or

- (b) The marks obtained by students are given below. Construct a histogram and cumulative frequency curve : $7\frac{1}{2}+7\frac{1}{2}=15$

Marks	Frequency
0-10	3
10-20	7
20-30	12
30-40	15
40-50	8
50-60	5

3. (a) Explain range and quartile deviation with examples. 15

Or

- (b) What is standard deviation? Compute standard deviation from the following data : 3+12=15

x	10	20	30	40	50
f	3	7	10	6	4

4. (a) What do you understand by divergence of normality? Explain skewness with suitable diagram. 3+12=15

Or

- (b) Assuming a normal distribution of scores, a test has a mean score of 120 and a standard deviation of 15. Compute the following : 15

- (i) Percentage of cases above 135
- (ii) Score that occupies the 75th percentile rank
- (iii) Score limits of the middle 68%

5. (a) A psychologist studied the relationship between study hours and test scores :

Study Hours (X)	2	4	6	8	10
Scores (Y)	50	55	65	70	80

Calculate Pearson's correlation coefficient and interpret the result. 15

Or

- (b) Discuss assumptions, uses and limitations of correlation in psychological research.
