

2025

(FYUGP)

(2nd Semester)

PSYCHOLOGY

(MAJOR)

Paper : C-PSY-04

**(Statistical Method 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) Differentiate between descriptive and inferential statistics. Explain the various types of variables in research.**

5+10=15

Or

- (b) Compute the 65th percentile (P65) and 40th percentile (P40) from the distribution given below :

Scores	Frequency
46-50	8
41-45	4
36-40	11
31-35	6
26-30	9
21-25	12
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$N = 50$	

2. (a) Explain the different methods of graphically representing ungrouped data. Discuss the use of histograms.

10+5=15

Or

- (b) The following table shows the marks obtained by students in a psychological test :

Marks	Frequency
10-20	5
20-30	12
30-40	18
40-50	10
50-60	5

Construct a histogram and a cumulative percentage curve of the given data. 15

3. (a) What is measures of variability? Describe by the various kinds of variability measures. $3+12=15$

Or

- (b) Compute the mean, median and mode for the following table given below :

$$5+5+5=15$$

Scores	Frequency
40-45	2
45-50	3
50-55	8
55-60	6
60-65	6
65-70	3
70-75	2
	$N = 30$

4. (a) Discuss the various applications of Normal Probability Curve (NPC). Differentiate between skewness and kurtosis. $5+10=15$

Or

- (b) The mean IQ score of a population is 100 with a standard deviation of 15. Calculate the percentage of people expected to have IQ scores (i) below 85, (ii) between 85 and 115 and (iii) above 130 assuming a normal distribution. 15

5. (a) What is Pearson's correlation coefficient? Explain positive and negative correlation. What are the cautions concerning the use of correlation coefficient? $3+6+6=15$

Or

- (b) A psychologist wants to examine the relationship between study hours and exam performance. The following table provides the data for 5 students :

Study (X) hours	2	4	6	8	10
Exam scores (Y)	55	60	65	70	80

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

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