

2024

(FYUGP)

(2nd Semester)

PSYCHOLOGY

(Major)

Paper Code : 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*

Answer **five** questions, selecting **one** from each Unit

UNIT—I

1. (a) What is the role of statistics in psychological research? Explain in detail the various scales of measurement. 5+10=15

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(Turn Over)

(2)

(b) The following scores were obtained by a group of 40 students on a psychology test :

32	78	27	65	88
86	70	42	66	56
73	52	43	69	59
42	55	39	70	57
34	61	62	77	81
83	44	46	49	72
63	52	63	59	71
65	78	70	79	69

Construct a frequency distribution table and extend it to the cumulative frequency distribution for the above data using inclusive method. 15

UNIT—II

2. (a) What is a frequency polygon? Mention the various advantages and disadvantages of frequency polygon. Draw

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(Continued)

(3)

a frequency polygon from the following data : $3+6+6=15$

Marks in Mathematics	No. of Students
40-44	1
45-49	3
50-54	2
55-59	4
60-64	5
65-69	6
70-74	10
75-79	8
80-84	5
85-89	6
90-94	2
95-99	1

(b) What do you understand by the term 'graphical representation of data'? List its advantages. Mention in brief the various types of graphs used in the representation of frequency distributions. $6+5+4=15$

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(Turn Over)



UNIT—III

3. (a) What do you understand by the term 'measure of central tendency'? Point out the most common measures of central tendency. Explain the mathematical properties of arithmetic mean. $2+3+10=15$
- (b) Define 'standard deviation'. The following table gives the distribution of marks of 100 students. Calculate standard deviation and its coefficient : $3+12=15$

Marks	No. of Students
0-10	10
10-20	15
20-30	25
30-40	25
40-50	10
50-60	10
60-70	5

UNIT—IV

4. (a) State the importance and the properties of the normal probability curve. $7\frac{1}{2}+7\frac{1}{2}=15$

- (b) Given a distribution of mean (μ) = 40 and standard deviation (σ) = 10. Find the probability that a value is
- (i) less than 50;
 - (ii) greater than 50;
 - (iii) the percentage of cases between 35 and 40. 15

UNIT—V

5. (a) What is coefficient of correlation? Discuss the three types of correlation. $3+12=15$
- (b) Calculate Karl Pearson's coefficient of correlation from the following data : 15

x	9	8	7	6	5	4	3	2	1
y	15	16	14	13	11	12	10	8	9
