## 2021

## **PSYCHOLOGY** — **HONOURS**

Paper: CC-2

## (Statistical Methods for Psychological Research - I)

Full Marks: 50

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

1. Write short notes on any two (word limit 100 each):

 $5 \times 2$ 

- (a) Histogram
- (b) Skewness
- (c) Descriptive Statistics
- (d) The semi-Interquartile range.
- 2. Answer any one of the following (word limit 150):
  - (a) Write with suitable examples the different scales of measurement.

10 4+6

2+8

- (b) Discuss the necessity of Sampling in research. Write the characteristics of random sampling.
- (c) What is variability? With *any method* calculate the standard deviation of the following data.

<b>Class Interval</b>	Frequency			
57–61	2			
52–56	2			
47–51	3			
42–46	6			
37–41	6			
32–36	20			
27–31	50			
22–26	63			
17–21	53			
12–16	33			
7–11	11			
2–6	1			

N = 250

Please Turn Over

- 3. Write any two of the following (word limit 200 each):
  - (a) With a suitable diagram discuss the characteristic of a Normal Probability Curve. Show the areas of distribution in terms of Percentage of the Cases.
  - (b) Define central tendency. Mention different types of its measure. Compute the most stable measure of central tendency of the following data. (2+3)+10

Class Interval	60-64	65–69	70–74	75–79	80-84	85–89	90–94
Frequency	2	4	6	12	8	5	5

(c) Write the steps of plotting a frequency distribution (Polygon).

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- (d) (i) What is correlation coefficient?
  - (ii) Correlation describe the degree and direction of the relationship between two variables—discuss.
  - (iii) What are the assumptions of Spearman's rank order correlation?
  - (iv) Compute the correlation of the following data.

2+5+3+5

V <sub>1</sub>	8	6	5	7	9	2
$V_2$	16	11	6	24	22	10