

MASTER OF ARTS (PSYCHOLOGY)

Term-End Examination

February, 2021

MPC-006 : STATISTICS IN PSYCHOLOGY

Time : 2 hours

Maximum Marks : 50

Note : All sections are **compulsory**. Use of simple calculator is permitted.

SECTION A

Note : Answer any **two** of the following questions in about 450 words each : $2 \times 10 = 20$

1. Describe measures of central tendency. Elucidate advantages and disadvantages of descriptive statistics. $6+4=10$

2. What is Normal distribution ? Discuss its importance and characteristics. 10

3. Compute t test for the following data : 10
Group A : 2, 3, 4, 5, 2, 7, 5, 4, 3, 2
Group B : 3, 2, 7, 2, 6, 5, 5, 5, 4, 3

4. Compute one-way ANOVA for the following data and indicate if the three groups differ on the variable.

10

$$P < .05 = 3.35$$

$$P < .01 = 5.49$$

Group A : 2, 3, 2, 2, 2, 5, 5, 5, 5, 5

Group B : 3, 3, 3, 2, 2, 4, 4, 4, 2, 2

Group C : 3, 5, 4, 4, 2, 3, 2, 4, 5, 5

SECTION B

Note : Answer any **four** of the following questions in about 250 words each : 4×6=24

5. Discuss merits and demerits of Two-Way Analysis Variance. 3+3=6
6. Discuss Point and Interval estimation. 3+3=6
7. Compute Mann-Whitney U test for the following data : 6
Group A : 7, 18, 20, 34, 23, 28, 27, 48, 43, 55
Group B : 16, 8, 37, 31, 35, 40, 42, 50, 52, 44
8. Compare Pearson's 'r' with Kendall's 'Tau'. 6
9. Compute chi-square for the following data. 6

	Low socio-economic status	High socio-economic status
Male	20	25
Female	60	35

SECTION C

Note : Write short notes on any **two** of the following
in about 100 words each : $2 \times 3 = 6$

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|---------------------------------------|---|
| 10. Histogram | 3 |
| 11. Interactional effect | 3 |
| 12. Assumptions underlying Regression | 3 |
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