

No. of Printed Pages : 4

**MPC-006**

**M. A. (PSYCHOLOGY)**  
**(MAPC)**

**Term-End Examination**

**June, 2023**

**MPC-006 : STATISTICS IN PSYCHOLOGY**

*Time : 2 Hours*

*Maximum Marks : 50*

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**Note :** (i) *All Sections are compulsory.*

(ii) *Use of simple calculator is permitted.*

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**Section—A**

**Note :** *Answer any two of the following questions in about 450 words each (wherever applicable).*

2×10=20

1. Elucidate parametric and non-parametric statistics. Describe the assumptions of parametric statistics. 10
2. Explain point biserial correlation and phi-coefficient with suitable examples. 5+5

**P. T. O.**

3. Compute one way ANOVA for the following data : 10

Group A	Group B	Group C
4	6	10
6	7	11
7	10	12
9	12	13
2	13	14
4	14	15
7	15	17
8	17	10
9	18	2
2	3	4

Critical value for  $F = 3.35$  at 0.05 level of significance.

Critical value for  $F = 5.49$  at 0.01 level of significance.

4. Compute Spearman's rho for the following data :

10

Data A	Data B
16	15
19	17
18	16
10	9
12	10
13	12
17	19
9	8
7	6
5	4

### Section—B

*Note : Answer any four question in about 250 words each (wherever applicable).*

4×6=24

5. Explain the characteristics of normal probability curve. 6
6. Compute Chi-square for the following data : 6

### Responses

Gender	Yes	No
Male	15	5
Female	10	10

7. Discuss the importance and application of standard error of means. 6
8. Compute Mann-Whitney U test for the following data : 6

Group A	Group B
21	12
30	16
26	17
32	19
41	20
35	24
15	31

9. Explain the concept of interactional effect. Discuss merits and demerits of two way ANOVA. 2+6

### Section—C

**Note :** Answer any **two** of the following in about **100 words each**.  $2 \times 3 = 6$

10. Hypothesis testing. 3
11. Outliers and curvilinearity. 3
12. Wilcoxon matched pair signed rank test. 3