

03442

MASTER OF ARTS (PSYCHOLOGY)

Term-End Examination

December, 2017

MPC-006 : STATISTICS IN PSYCHOLOGY

Time : 2 hours

Maximum Marks : 50

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

SECTION - A

Answer any two of the following questions in about 450 words each : 2x10=20

- 1. Define nonparametric statistics and discuss its advantages and disadvantages. 3+7
- 2. Discuss multiple correlation. Explain partial correlation with suitable example. 3+7
- 3. Define correlation. Find out if relationship exists between the data given below with the help of Pearson's Product Moment Coefficient of Correlation. 3+7

A B C D E F G H I J

Data 1: 2 3 4 7 8 9 2 3 4 8

Data 2: 10 7 8 2 3 1 10 10 7 2

4. A research was carried out to find if significant difference exists in motivation of three groups of employees after they received three different training programmes. Compute ANOVA for the data given below : 10

Group A (Training 1) : 2, 3, 2, 3, 5

Group B (Training 2) : 5, 5, 5, 10, 10

Group C (Training 3) : 10, 10, 2, 3, 5

Critical value : 0.05 level of significance = 19.41

0.01 level of significance = 99.46

SECTION - B

Answer any four of the following questions in about 250 words each : 4x6=24

5. Discuss normal curve. Explain divergence from normal distribution, indicating the causes for the same. 2+4
6. Compute Mann - Whitney U test with the help of the following data : 6
Data 1 : 13, 16, 40, 47, 56, 70
Data 2 : 34, 12, 25, 39, 64
7. Male and female participants responded with strongly agree, agree, undecided, disagree and strongly disagree to a health related attitude questionnaire. The data is given below, compute chi square. 6

	strongly agree	agree	undecided	disagree	strongly disagree
Males	1	4	7	8	5
Females	3	2	6	4	5

Critical Value : for 0.01 level of Significance = 13.277
for 0.05 level of Significance = 9.488

8. Compute Kendall's tau for the following data : 6
- | | A | B | C | D | E | F |
|---|---|---|---|---|----|----|
| X | 2 | 7 | 1 | 5 | 8 | 10 |
| Y | 4 | 5 | 6 | 8 | 10 | 9 |
9. Explain null hypothesis with an example. Discuss 3+3 errors in hypothesis testing.

SECTION - C

Write short notes on **any two** of the following in about 100 words each : 2x3=6

10. Regression equation. 3
11. Measuring divergence from normal curve. 3
12. Ratio and Interval data. 3
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