# MASTER OF ARTS (PSYCHOLOGY) 

## 7 $M$ $M$ 0

## Term-End Examination

December, 2018

## MPC-006 : STATISTICS IN PSYCHOLOGY

## Time : $\mathbf{2}$ hours

Note: (i). All sections are compulsory.
(ii) Use of simple calculator is permitted.

## SECTION - A

Answer any two of the following questions in about 450 words each :

1. Differentiate inferential from descriptive statistics. $4+6$ Describe steps in setting up the level of significance.
2. Discuss the rational for using non-parametric $3+7$ statistics and describe its advantages and disadvantages.
3. Explain partial correlation. Compute Spearman's 3+7 Rho for the following data :

| Data : A | 60 | 54 | 59 | 44 | 49 | 48 | 40 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Data : B | 55 | 60 | 69 | 70 | 67 | 66 | 54 |

4. Compute ANOVA for the following data :

| Group : 1 | 2 | 2 | 3 | 3 | 2 | 4 | 2 | 3 | 2 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Group : 2 | 3 | 2 | 2 | 2 | 3 | 3 | 2 | 2 | 2 |
| Group : 3 | 3 | 3 | 3 | 4 | 4 | 4 | 1 | 1 | 1 |

Critical value : 19.41 for 0.05 level of significance 99.46 for 0.01 level of significance

## SECTION - B

Answer any four of the following in about 250 words each :
5. Compute $t$ test for the data given below :

Group A : $10,4,3,2,4,2,5,10,5,5$
Group B : $4,6,8,2,4,1,12,13,10,10$
Critical value : 2.10 at 0.05 level of significance 2.88 at 0.01 level of significance
6. Compute Mann Whitney $U$ test for the following data :
Group A : $100,86,94,85,69,70,82,74,64,59$
Group B : 96, 92, 90, 84, 80, 78, 76, 65, 62, 50
7. Compute Chi square for the following data :

| Male | Agree | Disagree | Not decided |
| :--- | :---: | :---: | :---: |
|  | 20 | 10 | 20 |
| Female | 10 | 20 | 30 |

Critical value :
5.991 at 0.05 level of significance
9.210 at 0.01 level of significance
8. Discuss the importance and application of standard error of mean.
9. Discuss factors causing divergence in normal curve.

## SECTION - C

Write short notes on any two of the following in
about 100 words each : $2 \times 3=6$
10. Point biserial correlation. 3
11. Linear regression. 3
12. Two ways Analysis of Variance. 3

