MASTER OF ARTS (PSYCHOLOGY)

Term-End Examination

00478

June, 2015

MPC-006 : STATISTICS IN PSYCHOLOGY

Time : 2 hours   *Maximum Marks : 50*

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

SECTION A

*Note : Answer any **two** of the following questions in about 500 words each :*   *2×10=20*

1. Discuss the graphical and diagrammatic presentation of data.   *5+5=10*

2. Define Correlation and Regression. Find out if a relationship exists between the two groups of data given below with the help of Spearman's Rank coefficient of correlation.   *3+7=10*

    Data 1 :   11, 10, 7, 9, 5, 8, 3, 6, 12, 13

    Data 2 :   4, 3, 2, 20, 13, 12, 11, 10, 6, 5

3. Define non-parametric statistics. Compute chi-square for the following data : *3+7=10*

Age group	Attitude towards Tribals		
	+ve	−ve	
11 – 15	25	30	55
16 – 20	20	40	60
21 – 25	10	20	30
26 – 30	35	20	55
Total	90	110	200

χ^2 at 0·01 level = 11·345

4. Explain the meaning of variance. Three groups of employees were given training for enhancing communication skills. Three different techniques were used. The scores of their performance test are given as follows. With the help of ANOVA, find out whether significant difference exists in their performance. *3+7=10*

Group A	Group B	Group C
6	5	7
3	5	3
7	9	7
1	4	1
3	3	5
5	5	5
3	4	5

Critical value = 0·01, level of significance = 6·01

SECTION B

5. Describe the measures of central tendency with hypothetical data. 6

6. Explain regression equation with the help of hypothetical data. 6

7. Calculate Mann-Whitney U-test with the help of the following data : 6

    Data 1 : 37, 62, 71, 65, 66, 45

    Data 2 : 42, 61, 70, 63, 72, 47

8. Describe the different scales of measurement with suitable examples. 6

9. Discuss the advantages and disadvantages of ANOVA. 6

SECTION C

10. Type I and Type II errors *3*

11. Linear Regression *3*

12. Kurtosis *3*