

**MASTER OF ARTS (PSYCHOLOGY)**

**Term-End Examination**

**December, 2016**

**MPC-006 : STATISTICS IN PSYCHOLOGY**

*Time : 2 hours*

*Maximum Marks : 50*

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

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

**SECTION - A**

**Note :** Answer **any two** of the following questions  
in about **500** words each : **2x10=20**

1. Discuss the concept of Normal Curve. Describe 3+7  
properties of Normal Probability Curve.
2. Define Non-parametric Statistics. Describe the 3+7  
assumptions and use of non-parametric tests.
3. A research was carried out to find if significant 10  
difference exists in the self concept of early,  
middle and late adolescents. The scores obtained  
on self concept are given below. Using ANOVA  
indicate if the groups differ on self concept  
significantly.

Group I (Early)	Group II (Middle)	Group III (Late)
14	8	7
15	13	5
13	14	7
12	22	6
11	14	8
10	24	8
9	12	10
5	15	8
3	20	6
4	15	6

Critical value : 5.49 at 0.01 level of significance.

3.35 at 0.05 level of significance.

4. Compute regression equation for X and Y based on the data given below : 10

Individuals	X	Y
A	2	10
B	7	12
C	8	3
D	3	10
E	5	10

## SECTION - B

**Note :** Answer any four of the following questions  
in about 300 words each : **4x6=24**

5. Define hypothesis testing. Discuss general procedure for testing a hypothesis with the help of suitable example. **2+4**

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

**Group 1 :** 40, 17, 46, 51, 45

**Group 2 :** 12, 18, 20, 15, 17

7. Compute Chi-square for the following data : **6**

Gender	Answers given	
	Correct	Incorrect
Males	50	60
Females	40	30

8. Compute Spearman's Rank Correlation for the following data : **6**

**Data 1 :** 44, 45, 45, 34, 43, 23, 54, 34, 67, 45

**Data 2 :** 12, 21, 32, 12, 12, 15, 26, 12, 16, 12

9. Describe point biserial correlation and tetrachoric correlation. **3+3**

## SECTION - C

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

- |     |   |   |
|-----|---|---|
| 10. | Kruskal-Walli's ANOVA Test              | 3 |
| 11. | Levels of measurement                   | 3 |
| 12. | Wilcoxon Matched Pair Signed Ranks Test | 3 |
-