

05962

**M.A. IN PSYCHOLOGY (MAPC)****Term-End Examination****June, 2012****MPC-006 : STATISTICS IN PSYCHOLOGY***Time : 2 hours**Maximum Marks : 50*

- Note :** (i) *Answer any five questions.*  
(ii) *Each questions carries 10 marks*  
(iii) *Use of a simple calculator may be permitted.*

1. Compare parametric and non parametric tests. 10
2. Calculate product moment correlation for the 10  
following coefficient of scores obtained by students  
on test A and test B.

Students	1	2	3	4	5
Test A	15	25	20	30	35
Test B	60	70	40	50	30

3. Discuss in detail the organization of data in terms 10  
of :  
(a) Classification of data and  
(b) Tabulation of data
4. Explain in detail the propertis of normal 10  
probability curve.

5. A study was conducted to examine the effect of three techniques on the stress level of the subjects. Test the difference among the three groups by using Analysis of variance (ANOVA) 10

Technique 1	Technique 2	Technique 3
3	4	5
5	5	5
3	3	5
1	4	1
7	9	7
3	5	3
6	5	7

- Critical value of  $F = 19.43$  at 0.05 level of significance.
  - Critical value of  $F = 99.44$  at 0.01 level of significance.
6. Discuss in detail significance of mean difference and standard error of the mean. 10
7. Define chi square distribution and highlight its uses as a test of 'Goodness of fit'. 10

8. 100 females and 60 males were asked to select one of the five optional subjects. The choices are given in the table as follows : 10

Subjects	Females	Males
A	10	15
B	25	15
C	10	5
D	30	15
E	25	10
Total	100	60

Find whether the choice of the subject depends on the gender of the individuals.

- Critical value of  $\chi^2 = 9.488$  at 0.05 level of significance.
- Critical value of  $\chi^2 = 13.277$  at 0.01 level of significance.

9. Calculate regression equations for  $x$  and  $y$  based on the data given as follows : 10

$$x = 4, 5, 4, 6, 3, 2$$

$$y = 3, 5, 2, 4, 3, 1$$

10. A research was conducted to find out the effectiveness of group discussion and lecture method as methods of teaching. Two groups were involved in research group A was given group discussion and group B was given lecture method. With the help of 'U' test examine whether scores differ significantly or not. 10

Group A : 8, 6, 10, 5

Group B : 9, 7, 11, 8, 12

The critical value for U for  $N=5$  and  $N_s=4$  is 0.008.

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