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RPC-002

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Ph.D PROGRAMME IN PSYCHOLOGY (PHDPC)

Term-End Examination

June, 2016

RPC-002 : ADVANCED PSYCHOLOGICAL STATISTICS

Time : 3 hours *Maximum Marks : **100***

Note : *(i)* ***All sections are compulsory.***
(ii) *Read the instructions carefully before attempting each section.*
(iii) *Use of simple calculator is **permitted.***

SECTION - A

Answer **any ten** of the following questions in about **50** words each. **10x4=40**

1. Nominal and Interval Scale

2. Median and Mode

3. Average Deviation

4. Partial Correlation

5. Regression

6. Sign test

7. Level of significance

8. Hypothesis testing

9. Histogram

10. Type - I and Type - II errors

11. Chi - square test

SECTION - B

Answer **any five** of the following questions in about **200** words each : **5x6=30**

12. Define Statistics. Differentiate between descriptive and inferential statistics. **2+4**

13. Compute Spearman's Rank coefficient of correlation for the following data : **6**

	A	B	C	D	E
Data X :	19	18	16	15	13
Data Y :	18	19	17	16	14

14. What are the conditions under which t - test can be used ? Give a suitable example. **6**

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

Responses

	Always	Frequently	Rarely	Never
Males	10	30	10	10
Females	20	40	20	30

Critical value = 11.345 at 0.01 level of significance
= 7.815 at 0.05 level of significance

16. Compute Mann Whitney U test for the following data : **6**

Data 1 : 12, 25, 20, 16, 17

Data 2 : 14, 15, 21, 18, 19

17. Define Variance. Elucidate the steps for Two - way Anova. **2+4**

SECTION - C

Answer **any two** of the following questions in about **500** words each : **2x15=30**

18. Describe normal curve with the help of suitable diagram and discuss its characteristics. Discuss divergence from normality. **10+5**

19. Compute ANOVA for the following data : **15**

Group A : 2, 3, 4, 2, 6, 2, 3, 3, 2, 3

Group B : 4, 2, 3, 2, 3, 3, 2, 3, 2, 2

Group C : 2, 4, 2, 3, 2, 3, 3, 3, 3, 2

Critical Value =

99.50 at 0.01 level of significance

19.50 at 0.05 level of significance

20. Differentiate between parametric and non-parametric statistics. Compute Kendalls' tau for the following data : **5+10**

	A	B	C	D	E
X:	6	7	8	10	4
Y:	7	8	4	5	3