

Doctor of Philosophy in Psychology (PHDPC)

Term End Examination

June, 2014

RPC 002: ADVANCED PSYCHOLOGICAL STATISTICS

*Time: 3 Hours**Maximum Marks:100*

Note: All sections are compulsory. Read the instructions carefully before attempting each section. Use of simple calculator is permitted.

Section-A

Answer any 10 of the following questions in about 50 words each. All questions carry equal marks. 10 x 4=40

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|--------------------------|---|
| 1. Nominal scale | 4 |
| 2. Histogram | 4 |
| 3. Median | 4 |
| 4. Range | 4 |
| 5. Level of Significance | 4 |
| 6. Path analysis | 4 |
| 7. Skewness | 4 |
| 8. Biserial Correlation | 4 |
| 9. MANOVA | 4 |
| 10. Decile | 4 |
| 11. Standard Deviation | 4 |

Section- B

Answer *any 5* of the following questions in about *200 words* each. All questions carry equal marks. 5 x 6=30

12. Calculate Spearman Rank Coefficient Correlation with the help of the following data: 6

Students

	A	B	C	D	E	F	G	H	I
Marks in Psychology	11	7	10	13	9	6	14	15	16
Marks in Sociology	7	9	13	17	12	6	15	18	14

13. Explain the term variability and discuss the different measures of variability. 6

14. In a research males and females were asked to respond with Strongly Agree, Undecided and Strongly Disagree to the statement 'Cancer is contagious'. The data is as follows: 6

	Strongly Agree	Undecided	Strongly Disagree
Males	8	10	20
Females	5	12	25

Find out whether gender and responses are independent of each other at 0.01 level of significance.

15. The following are the scores obtained by employees of private and public sector bank on job satisfaction. Find out whether significant difference exists between the scores obtained by the employees from the two sectors.

Private Sector Bank Employees: 12,4,4,6,7,8,14

Public Sector Bank Employees: 4,6,8,10,12,12,14,16

6

16. Differentiate between Percentile and Percentile rank with suitable examples. Discuss their application in research. 3+3=6

17. A group of six individuals obtained the following scores on Test A and Test B.

6

Individuals

	1	2	3	4	5	6
Test A	3	5	2	4	3	1
Test B	4	5	4	6	3	2

Determine both regression and equations.

Section-C

Answer *any 2* of the following questions in about *500 words* each. All questions carry equal marks. 15 x 2=30

13. Explain the term Normal Curve with suitable example. Describe its characteristics and application. 5+10=15

19. Elucidate the meaning of term analysis of variance. Discuss the procedure for calculating ANOVA with a hypothetical data. 5+10=15

20. Explain Mann-Whitney U Test. With the help of the following data find out if educated and uneducated individuals differ in their attitude towards women.

	<i>Attitude towards Women</i>
Educated	70,60,55,64,66,45,69,68,56,51,67, 62,59,62,65
Uneducated	49,54,50,64,48,60,54,47,62,60

5+10=15