Ph.D. PROGRAMME IN DISABILITY STUDIES Term-End Examination December, 2016 RMD-002 : STATISTICAL TECHNIQUES IN DISABILITY STUDIES Time : 3 hours Maximum Marks : 100 Note : (i) All sections are compulsory.

| | 1 5 |
|-------|--|
| (ii) | Read the instructions given in each section |
| | carefully. |
| (iii) | Use of simple calculator is <i>permitted</i> . |

SECTION - A

Answer the following questions in 50 words each (any 10) : 10x4=40

- **1.** Statistics
- 2. Linear correlation
- 3. Regression
- 4. Eigen value
- 5. MANOVA
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- 6. Cluster analysis
- 7. Multiple correlation
- 8. Structural Equation
- 9. Average Deviation
- 10. Level of significance
- 11. Nominal and Ordinal data with examples

SECTION - B

| | Answer the following questions in 200 words each (any 5) : $5x6=$ | -30 |
|-----|---|-----|
| 12. | Differentiate between parametric and non-parametric statistics. | 6 |
| 13. | Discuss ANOVA in non-parametric statistics. | 6 |
| 14. | Compute mean, median and mode for the following data : 12, 13, 14, 16, 16, 16, 16, 17, 18, 19, 12, 11, 10, 9, 4. | 6 |
| 15. | Compute standard deviation for the following data : 12, 13, 16, 18, 19, 12. | 6 |
| 16. | Describe path analysis. | 6 |
| 17. | Explain graphical methods of data collection. | 6 |
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SECTION - C

Answer the following questions in 500 words each (any 2) : 15x2=30

18. Define Correlation. Compute Spearman's rho for **4+11** the following data :

| | Α | В | C | D | E | F | G |
|--------|----|----|----|----|----|----|----|
| Data x | 35 | 40 | 32 | 31 | 20 | 19 | 18 |
| Data y | 34 | 60 | 31 | 33 | 25 | 26 | 18 |

- **19.** Describe the properties and application of Normal **8+7** Distribution Curve.
- **20.** Discuss the application of Chi-Square test. **6+9** Compute Chi-Square for the following data :

| | Responses | | | | | |
|---------|-----------|----|-----------|--|--|--|
| | Yes | No | Undecided | | | |
| Males | 10 | 30 | 30 | | | |
| Females | 5 | 10 | 15 | | | |

Critical value :

5.991 at 0.05 level of significance. 9.210 at 0.01 level of significance.

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