MSW

**M 26286**

Reg. No. : ...................................

Name : ...................................

**Third Semester M.S.W. Degree (Reg./Sup.) Examination, December 2014**
**Paper – XVI : STATISTICS**

Time : 3 Hours                                                                 Max. Marks : 80

## PART – I

Answer **any six** questions. **Each** question carries **3** marks. Answer to a question is limited to **100** words.
Write short notes :

1. Statistical hypothesis

2. Range

3. Probability

4. Degrees of freedom

5. Standard error

6. Mode

7. Mutually exclusive events

8. Level of significance

9. Dispersion.

## PART – II

Answer **any five** questions. **Each** question carries **6** marks. Answer to a question is limited to **200** words.

10. State and prove the Multiplication Theorem of probability. How is the result modified when the events are independent ?

11. Describe Normal Distribution and discuss its properties. Why is it important in statistical theory ?

P.T.O.

12. Describe t-test. What are the assumptions for t-test ?

13. What is $\chi^2$ test ? What are the uses of $\chi^2$ test ?

14. What are the objectives of diagrammatic presentation ? Name the different types of diagrammatic representation of data.

15. Explain testing of hypothesis.

16. Calculate the median for the data given below :

| Daily Earnings (in Rs.) | No. of Persons |
|---|---|
| 50 – 53 | 3 |
| 53 – 56 | 8 |
| 56 – 59 | 14 |
| 59 – 62 | 30 |
| 62 – 65 | 36 |
| 65 – 68 | 28 |
| 68 – 71 | 16 |
| 71 – 74 | 10 |
| 74 – 77 | 5 |

17. Calculate the Mean Deviation from Mean for the following data :

| Class Interval | 2 – 4 | 4 – 6 | 6 – 8 | 8 – 10 |
|---|---|---|---|---|
| Frequency | 3 | 4 | 2 | 1 |

PART – III

Answer **any two** questions. **Each** question carries **equal** marks. Answer to a question is limited to **900** words.

18. What do you mean by Correlation Analysis ? Describe the different types of correlation with suitable examples. Also enumerate the methods of studying correction.

19. What do you mean by tabulation ? Write an essay describing the objectives of tabulation, different components of a table, requisites of an ideal table and the various types of tables.

20. Find the rank correlation coefficient between poverty and overcrowding from the table below :

| Town | No. per 200 households below minimum standard of living | Overcrowding |
|------|------------------------------------------------------------|--------------|
| A | 17 | 36 |
| B | 13 | 46 |
| C | 15 | 35 |
| D | 16 | 24 |
| E | 6 | 12 |
| F | 11 | 18 |
| G | 14 | 27 |
| H | 9 | 22 |
| I | 7 | 2 |
| J | 12 | 8 |

(16×2=32)

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