Name: $\qquad$
Third Semester M.S.W. Degree Examination, January 2007 Paper - XVI : QUANTITATIVE METHODS IN SOCIAL RESEARCH

Time: 3 Hours
Max. Marks: 80
PART - I

Answer any six questions. Each question carries $\mathbf{3}$ marks. Answer to a question is limited to 100 words :

Write short notes on :

1. Functions of statistics
2. Median
3. Skewness
4. Phi-Co-efficient
5. Internet
6. Significance level
7. Quartile Deviation

8. Statistical Packages
9. Histogram.
$(6 \times 3=18)$

## PART - II

Answer any five questions. All questions carry equal marks. Answer to a question hould not exceed 200 words.
10. Briefly explain the uses and limitations of graphic presentation of Data.
11. Discuss the applicability of statistics in social work research.
12. Describe the different measures of central tendency of a frequency distribution, mentioning their merits and demerits.
13. Explain ' t ' - test.
14. Find the mean for the following frequency distribution.

| Class Interval | $40+50$ | $50-60$ | $60-70$ | $70-80$ | $80-90$ | Total |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Frequency | 4 | 11 | 19 | 10 | 6 | 50 |

15. Calculate the standard deviation for the following data.

| 26 | 32 | 15 | 24 | 26 | 15 | 22 | 10 | 16 | 21 | 30 | 11 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 18 | 14 | 27 | 31 | 29 | 17 | 33 | 25 |  |  |  |  |

16. Calculate co-efficient of correlation between the 2 variables.

| $\mathbf{X}$ | 8 | 10 | 15 | 17 | 20 | 22 | 24 | 25 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathbf{Y}$ | 25 | 30 | 32 | 35 | 37 | 40 | 42 | 45 |

17. Explain scatter diagram with sketches.

PART - III
Answer any two questions. Each question carries 16 marks :
Answer to a question is limited to 900 words.
18. Explain the procedure of testing a hypothesis. What do you mean by one-tailed and two tailed tests.
19. Apply Chi-square test to test whether attributes smoking and literacy are independent.

|  | Smokers | Non-smokers |
| :--- | :---: | :---: |
| Literates | 13 | 197 |
| Illiterates | 46 | 204 |

$($ Table value $=3.84)$
20. The following are the distribution of monthly pay of workers of 2 factories. Compute co-efficient of variation for both and compare their variation.

| Pay (Rs.) | $400-600$ | $600-800$ | $800-1000$ | $1000-1200$ | $1200-1400$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Factory : A | 4 | 18 | 25 | 2 | 1 |
| Factory : B | 10 | 20 | 42 | 18 | 10 |

( $2 \times 16=32$ )

