M-III/12
235747

## SOCIOLOGY

Course No.: 302
Time Allowed- $2^{1 ⁄ 2}$ Hours
Maximum Marks-80

## SECTION-A

Attempt Four questions in all, selecting One from each unit.

## UNIT-I

1. Write a note on various Measures of Central Tendency. Obtain the mode for the following frequency distribution:

| Wages : <br> (in Rupees): | $2000-3000$ | $3000-4000$ | $4000-5000$ | $5000-6000$ | $6000-7000$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| No. of <br> Workers: | 3 | 5 | 20 | 10 | 5 |

2. Write a note on any two methods for determining Test Reliabil- ity in quantitative research.

## UNIT-II

3. Distinguish between Correlation and Regression and how are they related. Calculate the coefficient of correlation between X an Y for the following:

| $\mathrm{X}:$ | 10 | 5 | 0 | 5 | 10 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathrm{Y}:$ | 5 | 9 | 7 | 11 | 13 |

4. Define Standard deviation as a measure of dispersion giving its merits and demerits.

Calculate standard deviation for the following data: https://www.jktopper.com

| Marks: | $0-10$ | $10-20$ | $20-30$ | $30-40$ | $40-50$ | $50-60$ | $60-70$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. of 6 Students: | 6 | 5 | 8 | 15 | 7 | 6 | 3 |

## UNIT-III

5. What is Sampling and what are its advantages. Explain in short the popular random sampling methods?
6. What do you mean by tests of significance? Explain t-test and its applications in research.

## UNIT-IV

7. What is a computer and its Operating System (OS) and give importance of Windows Operating System?
8. What is the use of computers in respect of Statistical Data? What are the applications of MS Excel?

## SECTION-B

Attempt four questions in all, selecting one from each unit.

## UNIT-I

9. What is the significance of Validity of Test Scores in Quantitative Research? How is Validity calculated and throw light on its difference with reliability?
10. Calculate Median Time (in Years) for the data given below:

Time
Frequency
(No.of Years)
0-2 8
2-4 11
4-6 17
6-8 10
8-10 9
10-12 5

## UNIT-II

11. Write a note measures used for studying Association of Attributes.
12. Calculate Quartile Deviation for the following data:

| Classes : | $10-20$ | $20-30$ | $30-40$ | $40-50$ | $50-60$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Frequency : | 5 | 15 | 20 | 12 | 8 |

## UNIT-III

13. Define Chi-Square test and mention its applications.
14. Write a note on important steps used for carrying out testing of hypothesis.

## UNIT-IV

15. Describe in brief the important functions and applications of MS Office?
16. Write a note on applications and uses of Computers in Research

## SECTION-C

Tick the correct alternative. (Also put your option in your answer sheet) $\quad(1 \times 8=8)$
17. Harmonic Mean of 0.1.2.3.4.5 is
a) 0
b) Cannot be determined
c) 3
b) 2.5
18. Which of the following is not a scale of measurement?
a) Ordinal
b) Interval
c) Ratio
d) Split Half
19. Mean Deviation from mean is a measure for
a) Central tendency of data
b) Variability of Data
c) Attributes of data
d) All of these
20. Which of the following is a Statistical Software?
a) SPSS
b) ANOVA
c) CHI-SQUARE
d) All of the above
21. Which of the following test can be applied to test the independence of attributes
a) $F$ test
b) Chi-Square Test
c) $t$-test
d) All of these
22. If-0.4 and -0.1 are two regression coefficients then correlation coefficient could be.
a) 0.2
b) -0.2
c) -.02
d) .02
23. Arithmetic Mean of $-6,-4,-2,0,2,4,6$ is
a) 0
b) 2
c) 1
d) -2
24. Mean deviation about Median for 1.1.1.1.1.1.1 is
a) -1
b) 1
c) 0
d) Cannot be determined.

