M.A. 1st Semester Examination, 2019

SOCIOLOGY

PAPER — SOC-104

Full Marks : 50

Time : 2 hours

The figures in the right hand margin indicate marks

Candidates are required to give their answers in their own words as far as practicable

Illustrate the answers wherever necessary

GROUP — A

Answer any **four** of the following questions : 2×4

1. What do you mean by dependent variable ?

2. In a locality there are 60 males and 39 females. What will be the percentage of males in that locality ?

3. What do you mean by nominal level of measurement ?

4. Round the following decimals :

   (a) 9·996171
   (b) 8·722222

5. What is scatter diagram ?

6. What is a contingency table ?

7. What do you understand by symmetric and asymmetric measures of association ?

8. What are directional and non-directional hypothesis ?

GROUP — B

Answer any **four** of the following questions : 4×4

9. Draw a frequency polygon with the following data :

Class Interval	Frequency
5 - 9	15
10 - 14	25
15 - 19	47
20 - 24	52
25 - 29	66
30 - 34	72
35 - 39	77

(*Continued*)

10. Several entries in a frequency distribution of children's ages are

　　　1 to 5, 6 to 10, 11 to 15.

(*a*) What is the width of the interval ?

(*b*) What are the lower and upper real limits of each of these three intervals ?

(*c*) What are the midpoints of each interval ?

11. What are the different types of probability sampling ?

12. Calculate median from the following array of scores :

100, 2, 8, 1, 7, 4, 6, 10, 12, 11, 13, 17, 19, 24, 27, 20, 26, 28.

13. Write a short note on the function of inferential statistics.

14. Find out the rank correlation from the given data and interpret the results.

x	15	20	28	12	40	60	20	80
y	40	30	50	30	20	10	30	60

15. In a study concerned with relationship between two variables X and Y, the results were obtained.

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      <u>X variable</u>   <u>Y variable</u>

      $\overline{X} = 70$ $\overline{Y} = 75$

      $S_x = 4$ $S_y = 8$

             $r = 0 \cdot 60$

             $N = 100$

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Rakesh obtained a score of 70 on the x variable. Predict his score on Y variable.

16. A researcher is interested to find out whether 17 students from a particular school who are selected to participate in a special campaign and representative of the entire school in which $\mu = 78$. The 17 students who have been selected have a mean score of 84 in an aptitude test and standard deviation of 16. At $0 \cdot 05$ significance level, test your hypothesis.

$$\overline{x} = 84$$
$$S = 16$$
$$N = 17$$

GROUP – C

Answer any **two** of the following questions : 8×2

17. A review of the files for juvenile offenders presently held in a country detention home reveals that the majority have been arrested previously. Compute the *mean* and a *modal number* of arrests for the juvenile offenders.

Number of Previous Arrests	frequency
0	3
1	4
2	6
3	9
4	6
5	2
6	3
7	2

18. Calculate standard deviation from the following distribution :

Class Interval	50-60	60-70	70-80	80-90	90-100	100-110
Frequency	7	14	17	2	3	5

19. Find out the correlation coefficient from the following data and interpret the results :

x	23	18	21	21	21	21	18	14	23
y	44	46	42	56	32	47	38	45	41

20. From the table given below find out if there is any difference in the voting pattern of rural and urban voters. Test your hypothesis at 0·05 significance level.

Political Party	Rural	Urban	Total
A	8	12	20
B	6	4	10
C	12	16	28
D	8	4	12
Total	34	36	70

[*Internal Assessment* — 10 Marks]

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