

**2016**

**M.A.**

**2nd Semester Examination**

**SOCIOLOGY**

**PAPER—SOC-204**

*Full Marks : 40*

*Time : 2 Hours*

*The figures in the right-hand margin indicate full marks.*

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

**Group - A**

1. Answer any one of the following : 1×10

(a) What is central tendency? Compute arithmetic mean and mean deviation of the following distribution.

<u>Age</u>	<u>No. of Person</u>
20-24	10
25-29	18
30-34	34

*(Turn Over)*

35-39	49
40-44	24
45-49	16
50-54	9

- (b) Distinguish between absolute and relative measures of dispersion. What is standard deviation? Calculate standard deviation and variance from the following distribution.

<u>Class Interval</u>	<u>Frequency</u>	
50-60	7	
60-70	14	
70-80	17	
80-90	2	
90-100	3	
100-110	5	2+2+6

2. Answer any *two* of the following : 2×5

- (a) Draw histogram and frequency polygon on the same graph to present the following data-

<u>Class Interval</u>	<u>Frequency</u>
20-25	50
25-30	70
30-35	100

35-40	180
40-45	150
45-50	120
50-55	70
55-60	59

- (b) Write a note on the importance of statistics in social science research.
- (c) Calculate the suitable measurement of central tendency for the following distribution.

<u>Class Interval</u>	<u>Frequency</u>
Below 50	5
50-60	8
60-80	12
80-85	15
85-100	25
100-120	10
120 and above	3

**Group - B**

3. Answer any one of the following : 1×10

- (a) The voting behaviour of people in rural and urban areas are presented in the table below. Find out if

there is any difference in the voting behaviour among the rural and urban people by applying appropriate statistical technique at  $\alpha = 0.05$  level of significance and interpret the result.

Party	Village	City	Total
A	8	12	20
B	6	4	10
C	12	16	28
D	8	4	12
	34	36	70

- (b) What do you mean by correlation coefficient? The earning and expenditures of 7 families are given below. Find out the correlation and analyze the result.

$x$	40	60	35	55	50	75	80
$y$	30	40	32	40	35	55	58

4. Answer any *two* of the following : 2×5

- (a) A home maker found a correlation of 70 between the numbers of members of a family and the loaves of bread consumed.

No. of membersNo. of loaves

$\bar{x} = 50$

$\bar{y} = 5$

$S_x = 15$

$S_y = 1.2$

- (i) For a family gathering of 60, calculate the predicted number of loaves needed.
- (ii) For a gathering of 35, calculate the predicted numbers of loaves needed.
- (b) A sociologist found that the average length of friendship is longer before a second marriage than before a first marriage. He bases his assertion on the fact that the average for first marriages is 265 days, whereas the average for second marriages (eg. his 626 respondents) is 268.5 days, with  $S = 50$ . Test the validity of his assumption.
- (c) Find out the value of rank correlation from the given data and analyze the result.

Marks in EnglishMarks in Maths

56

66

75

70

45

40

71

60

61	65
64	56
58	59
80	77
76	67
61	63

**[Internal Assessment : 10 Marks]**

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