

Reg. No .....

Name .....

**M. A. DEGREE END SEMESTER EXAMINATION - MARCH 2020**  
**SEMESTER 2 : SOCIOLOGY**  
**COURSE : 15P2SOCT10 : STATISTICS FOR SOCIOLOGY**  
*(For Regular - 2019 Admission & Supplementary 2018/2017/2016 Admissions)*

Time : Three Hours

Max. Marks: 75

**Section A**  
**Answer any 8 (2 marks each)**

1. What is a Complex Table?
2. Mention what is a Frequency polygon
3. Define mode
4. Define Median and determine the median from the following figures  
25, 15, 23, 40, 27, 25, 23, 25 and 20
5. What are the different methods of studying variation?
6. What is Curvilinear Correlation?
7. Illustrate a perfect negative correlation
8. What do you mean by  $r = 1$ ?
9. Define F-Distribution
10. What is Test of significance?
11. Differentiate simple and compound events
12. What is Parameter and statistic?

(2 x 8 = 16)

**Section B**  
**Answer any 7 (5 marks each)**

13. Discuss briefly the various limitations of Statistics
14. What are the uses of Tabulation in social science research?
15. From the following frequency distribution draw a cumulative frequency curve and read off the values of the Median

Marks	0-5	5-10	10-15	15-20	20-25	25-30	30-35	35-40
No. of students	4	6	10	10	55	22	18	5

16. What are the desirable properties of an average? Calculate the mean, median and mode from the following data:

Wages (in Rs).	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64
No. of workers	31	47	59	78	104	113	81	60	52	25

17. Define correlation. Explain various types of correlation with suitable examples
18. In the following table recorded data showing the test scores made by 10 sales men in an intelligence test and their weekly sales.

Salesmen	1	2	3	4	5	6	7	8	9	10
Test scores	50	70	50	60	80	50	90	50	60	60
Sales (Rs.)	25	60	45	50	45	20	55	30	45	30

Calculate rank correlation coefficient between intelligence and sales efficiencies.

19. From the following data, calculate the coefficient of rank correlation between X and Y.

X	33	56	50	65	44	38	44	50	15	26
Y	50	35	70	25	35	58	75	60	55	26

20. Explain with examples the concepts of independent and mutually exclusive events in probability
21. What is Normal Distribution?
22. How do you go on testing a statistical hypothesis?

(5 x 7 = 35)

### Section C

Answer any 2 (12 marks each)

23. Explain the various steps in the formation of a frequency table?
24. Find the standard deviation of the weights of the 100 male students of ABC University:

Weights (in kg)	60-62	63-65	66-68	69-71	72-74
No. of students	5	18	42	27	8

25. Find the two regression equations from the following

X	25	30	35	40	45	50	55
Y	18	24	30	36	42	48	54

26. A stenographer claims that she can take dictations at the rate of more than 120 words per minute. Of the 12 test given to her she could perform an average of 135 words with a standard deviation of 40. Is her claim valid?

(12 x 2 = 24)