

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI – 86
(For candidates admitted from the academic year 2008 – 2009)

SUBJECT CODE: SC/MC/SS44

B.A. DEGREE EXAMINATION APRIL 2010
BRANCH III - SOCIOLOGY
FOURTH SEMESTER

COURSE : MAJOR – CORE
PAPER : SOCIAL STATISTICS
TIME : 3 HOURS.

MAX. MARKS: 100

SECTION – A

ANSWER ALL QUESTIONS. EACH ANSWER NOT TO EXCEED 50 WORDS: (10x2=20)

1. Define statistics.
2. What are the different scales of measurement?
3. Distinguish between discrete and continuous series.
4. Write any two functions of a table.
5. Calculate arithmetic mean for the following data:
10 27 33 45 15
6. What are the different measures of dispersion?
7. Find the range and its co-efficient for the following data:
18 16 24 32 44 38 14 20
8. What is a scatter diagram?
9. Write down the two regression lines.
10. What is a non parametric test?

SECTION – B

ANSWER ANY FIVE QUESTIONS. EACH ANSWER NOT TO EXCEED 300 WORDS: (5x8=40)

11. Discuss the various levels of measurement with suitable examples.

12. The marks obtained by 50 students are given below:

31	13	46	31	30	45	38	42	30	9
30	30	46	36	2	41	44	18	29	63
44	30	19	5	44	15	7	25	12	30
6	22	24	37	15	6	39	32	21	20
42	31	19	14	23	28	17	53	22	21

Construct a grouped frequency distribution.

13. A survey was conducted to determine the age (in years) of 120 automobiles. The result of such a survey is as follows:

Age of the Auto	:	0-4	4-8	8-12	12-16	16-20
Number of autos	:	13	29	48	22	8

What is the median age of the autos?

14. Calculate the quartile deviation and its co-efficient from the following data:

Salary (in Rs.)	:	1500	2000	2400	2800	3100
No of workers	:	4	20	21	16	9

15. What are the different methods of studying correlation?

16. You are given the following information about advertising expenditure and sales:

	Advertisement (X)	Sales (Y)
Arithmetic mean	10	90
Standard Deviation	3	12
Correlation coefficient	0.8	

Obtain the two regression equations.

17. What are non parametric tests? Point out the advantages of non parametric tests.

18. Bring out the importance of statistics in social sciences.

SECTION – C

ANSWER ANY TWO QUESTIONS.

(2 x 20 = 40)

19. The data given below represent the monthly expenditure (in Rs.) of the families a and B on various items:

Item of expenditure	Expenditure (in Rs.)	
	Family A	Family B
Fuel	2500	2000
Clothing	2000	1000
House Rent	1000	800
Fuel and lighting	500	400
Miscellaneous	2000	800

Represent the data by a suitable diagram on percentage basis. (use graph sheet).

20. Given;

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

Calculate mean deviation from mean and standard deviation.

21. Calculate quantities, D_7 , P_{40} .

X	f
25-35	8
35-45	20
45-55	23
55-65	30
65-75	19

22. From the data given below:

Marks in sociology	Marks in Statistics
25	43
28	46
35	49
32	41
31	36
32	32
29	31
38	30
34	33
32	39

Find:

- (i) Two regression lines
- (ii) The coefficient of correlation between marks in Sociology and Statistics
- (iii) Most likely marks in Statistics when marks in Sociology are 30.
