STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI 600 086
(For candidates admitted during the academic year 2011– 2012 & thereafter)

SUBJECT CODE: 11SC/MC/SS 44

B.A. DEGREE EXAMINATIONS, APRIL 2015
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
(10 x 2 = 20)

1. Define Social Statistics.

2. The salary of 100 employees in a college varied between Rs. 15000 and Rs 60,000. Calculate the class interval with the number of classes as 10.

3. What is a Bivariate frequency distribution?   Give an example.

4. State the role of tabulation.

5. The following table gives the expenditure on different items . Represent it in the form of simple bar diagram.

Item	Food	Rent	Education	Transporation
Expenditure (Rs in 000)	5	12	15	6

6. Define an Average.

7. The following is the monthly income of 10 employees in an organization. Calculate the arithmetic mean of income

Income	4500	10000	12000	22000	8500	10500	6500	15000	14500	7500

8. Define a mode. Calculate the modal value from the following data

22	24	25	22	21	22	34	22	35	36	35	24	22	21	34

9. What is dispersion?

10. Interpret the value of correlation of coefficient when r= 0, r = +1, and r = -1.

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SECTION - B

ANSWER ANY FIVE QUESTIONS. EACH ANSWER NOT TO EXCEED 300 WORDS: **(5 x 8 = 40)**

11. Explain the importance of measurement.

12. Explain the steps involved in the construction of a pie diagram.
    Draw a pie diagram for the following data on government expenditure (Rs in crs)

Rural Development	Health	Education	Energy	Social Service
350	120	130	170	240

13. a) What is an arithmetic mean? List the merit and limitations of an arithmetic mean.
    b) From the following data of the marks obtained by 60 students of a class calculate the arithmetic mean.

Marks	20	30	40	50	60	70
No. of Students	8	12	20	10	6	4

14. Explain in detail the different types of classification.

15. Examine the difference between correlation and regression.

16. Calculate the quartile deviation and the coefficient of quartile deviation from the following data:

Wages (Rs per week)	Less than 45	45-47	48-50	51-53	Over 53
No. of wage earners	14	62	99	18	7

17. Prepare a frequency distribution for the following 50 observations with class intervals of 10.

15	45	40	42	50	60	62	68	70	42
75	75	80	81	25	26	31	32	78	45
31	45	42	43	55	56	78	80	81	62
60	62	58	69	70	45	50	56	72	58
75	62	65	62	60	70	35	37	40	55

18. Explain the different parts of table.

SECTION – C

ANSWER ANY TWO QUESTIONS: **(2 x 20 = 40)**

19. Define Social Statistics. Explain the importance and relevance of statistical reasoning in Social Sciences.

20. a) Define Standard Deviation. Discuss the difference between mean deviation and standard deviation.

b) Calculate mean and standard deviation of the following frequency distribution of marks, taking the mid- point as 35.

Marks	0-10	10-20	20-30	30-40	40-50	50-60	60-70
No: of students	5	12	30	45	50	37	21

21. a) Explain the different types of correlation.

b) The below table gives the indices of agricultural production and the expenditure on seeds (in Rs in thousands). Using the Karl Pearson's direct method calculate the coefficient of correlation.

Year	2001	2002	2003	2004	2005	2006	2007	2008
Agricultural Production	100	102	104	107	105	112	103	99
Expenditure On seeds (Rs 000)	15	12	13	11	12	12	19	26

22. Calculate the regression equation of X on Y and Y on X from the following data and estimate X when Y = 28, and when X = 14. Take the assumed mean of X = 18 and Y =12.

X	10	12	13	17	18	20	24	30
Y	5	6	7	9	13	15	20	21

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