

**STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI – 600 086.**  
(For candidates admitted during the academic year 2009 – 2010 & thereafter)

**SUBJECT CODE: CM/PC/RM34**

**M.Com. DEGREE EXAMINATION NOVEMBER 2011**  
**COMMERCE**  
**THIRD SEMESTER**

**COURSE : CORE**  
**PAPER : RESEARCH METHODOLOGY**  
**TIME : 3 HOURS** **MAX. MARKS : 100**

**SECTION – A**

**ANSWER ANY FIVE QUESTIONS: 5 x 8 = 40**

1. Define research and bring out the criteria for a good research.
2. 1,000 families were selected at random in a city to test the belief that high income families usually send their children to public schools and the low income families often sent their children to government schools. The following results were obtained:

School

Income	Public	Govt.	Total
Low	370	430	800
High	<u>130</u>	<u>70</u>	<u>200</u>
Total	<u>500</u>	<u>500</u>	<u>1,000</u>

Test whether income and type of schooling are independent.

3. The sales data of an item in six shops before and after a special promotional campaign are as under:

Shops	A	B	C	D	E	F
Before campaign	53	28	31	48	50	42
After campaign	58	29	30	55	56	45

Can the campaign be judged to be a success? Test at 5% level of significance.

4. What is sampling? Explain the essentials of sampling.
5. What is scaling technique? Explain with an example.
6. What do you mean by hypothesis? Write on its characteristics.

7. a) The mean life time of a sample of 400 fluorescent light bulbs produced by a company is found to be 1,570 hours with a standard deviation of 150 hours. To the hypothesis that the mean life time of the bulbs produced by the company is 1,600 hours against the alternative hypothesis that it is greater than 1,600 hours at 1% level of significance.

- b) Intelligence test on two groups of boys and girls gave the following results:

	Mean	S.D.	N
Girls	75	15	150
Boys	70	20	250

Is there a significant difference in the mean scores obtained by boys and girls?

8. Bring out the features of a good questionnaire.

### SECTION – B

ANSWER ANY THREE QUESTIONS:

3x 20 = 60

9. Briefly explain the research process.
10. Discuss various types of research design.
11. The following table gives monthly sales (in thousand rupees) of a certain firm in three states by its four salesmen:

States	Salesmen			
	I	II	III	IV
A	6	5	3	8
B	8	9	6	5
C	10	7	8	7

Set up the analysis of variance table and test whether there is any significant difference (i) between sales by the firm salesmen, and (ii) sales in the three States.

12. Five varieties of wheat A, B, C, D and E, were tried. The gross size of the plot was 18 feet × 22 feet, the net plot being 14 feet × 18 feet. Thus the whole experiment occupied an area 90 feet × 110 feet. The plan, the varieties shown in each plot and yields obtained in kg. are given in the following table.

B	E	C	A	D
90	80	134	112	92
E	D	B	C	A
85	84	70	141	82
C	A	D	B	E
110	90	87	84	69
A	C	E	D	B
81	125	85	76	72
D	B	A	E	C
82	60	94	85	88

Carry out on analysis of variance. What inference can you draw from the data given?

13. Write on the main components of report writing in research.



