STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI – 86
(For candidates admitted from the academic year 2008– 09 & thereafter)

SUBJECT CODE : **EC/PC/RM24**

M. A. DEGREE EXAMINATION, APRIL 2009
BRANCH III – ECONOMICS
SECOND SEMESTER

COURSE   : **MAJOR - CORE**
PAPER   : **RESEARCH METHODOLOGY , COMPUTER**
                    APPLICATIONS - I
TIME   : **2 HOURS**   MAX. MARKS : 60
SECTION – A

**ANSWER ANY FOUR QUESTIONS. EACH ANSWER NOT TO EXCEED 300
WORDS.**   **(4 X 5 =20)**

1. Explain the precautions to be taken while collecting data.

2. Explain different approaches to the theory of probability.

3. What are the properties of normal distribution ?

4. Distinguish between parametric and non-parametric tests. Explain the
   concept of Standard error and its uses.

5. What are cyclical fluctuations ? Explain how would you measure them with
   a suitable example.

6. List the steps involved in testing hypothesis.

SECTION – B

**ANSWER ANY TWO QUESTIONS. EACH ANSWER NOT TO EXCEED 1200
WORDS.**   **(2 X20 =40)**

7. Calculate regression lines for the following data, if the length of experience
   is 12 years, estimate the income. Calculate correlation from regression
   coefficients.

Length of service	: 11	4	9	5	8	6	10
Income	: 7	5	3	2	6	4	8

8. Explain the components of time series with suitable examples.

9. a] The number of accidents per day were studied for 144 days in town B and for 100 days in town C and the following information was obtained. Is the difference between the mean accidents of the two towns statistically significant ?

	Mean no. of accidents	Standard deviation
Town A	4.5	1.2
Town B	5.4	1.5

b] The specification of the production of a certain alloy call for 23.2% of copper. A sample of 10 analyses of the product showed a mean copper content of 23.5% and a standard deviation of 0.24% Can we conclude at 1% level of significance that a] the product meets the required specifications and ii] the mean copper content is higher than the required specification. [Table value for v = 9, at 1% = 3.25]

10. A tea company appoints four salesmen A,B,C,D and observes their sales in three seasons summer, Winter, and Monsoon the figures (in lakhs) are given in the following table.

	Sales men				Season's Total
	A	B	C	D	
Summer	36	36	21	35	128
Winter	28	29	31	32	120
Monsoon	26	28	29	29	112
Salesmen's Total	90	93	81	96	360

i) Do the salesmen significantly differ I performance
ii) Is there significant difference between the seasons.

[$F v_1 = 6$, $v_2 = 2$ at 5% = 19.33
$F v_1 = 6$ $v_2 = 3$ at 5% = 8.94]

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