

**STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 86**  
**(For Candidates admitted during the academic year 2015 – 2016 and thereafter)**

**SUBJECT CODE: 15EC/PC/RM14**

**M.A. DEGREE EXAMINATION NOVEMBER 2018**  
**BRANCH III – ECONOMICS**  
**FIRST SEMESTER**

**COURSE : CORE**

**PAPER : RESEARCH METHODS AND ANALYSIS-I**  
**(PRACTICAL)**

**TIME : 1 HOUR**

**MAX.MARKS: 40**

**SECTION – B**

**I. Answer any FOUR questions**

**(4X10 =40)**

1. A research study was conducted to examine the differences between older and younger adults on perceived life satisfaction. A pilot study was conducted to examine this hypothesis. Ten older adults (over the age of 70) and ten younger adults (between 20 and 30) were given a life satisfaction test (known to have high reliability and validity). Scores on the measure range from 0 to 60 with high scores indicative of high life satisfaction; low scores indicative of low life satisfaction. The data are presented below. Compute the appropriate test. Interpret your answer.

**Older Adults   Younger Adults**

45	34
38	22
52	15
48	27
25	37
39	41
51	24
46	19
55	26
46	36

2. Survey records for a sample of 12 families show the following weekly consumption expenditure (Y) and weekly income (X):

Y	70	76	91	100	105	113	122	120	146	135	147	155
X	80	95	105	115	125	135	145	155	165	175	185	200
		*			*	*	*		*	*	*	*

Families with an asterisk (\*) reported that their income is higher than in the previous year. Using a linear consumption function, test whether the consumption behavior of the families experiencing an increase in income is different from that of families who did not experience an increase.

3. The following table gives the number of TV sets (Y) and its price.

No. of TV sets (Y)	543	580	618	695	724	812	887	99	1186	1940
Price (in Rs.'000)	61	54	50	43	38	36	28	23	19	10

- Estimate the demand function of TV sets.
- Estimate the price elasticity of demand.
- Test the statistical significance of the parameters.

4. Estimate the growth rate of profit of a company from the following data:

Year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Profit	205	210	219	233	243	263	271	279	298	310

(in '00000 rupees)

5. A firm wishes to compare four programs for training workers to perform a certain manual task. Twenty new employees are randomly assigned to the training programs, with 5 in each program. At the end of the training period, a test is conducted to see how quickly trainees can perform the task. The number of times the task is performed per minute is recorded for each trainee, with the following results:

Observation	Program 1	Program 2	Program 3	Program 4
1	9	10	12	9
2	12	6	14	8
3	14	9	11	11
4	11	9	13	7
5	13	10	11	8

Perform appropriate test to draw inferences about the treatment effects for the four programs.

6. A U.S. magazine carried out a survey of the calorie and sodium content of a number of different brands of hotdog. There were two types of hotdog: beef, and poultry. The results below are the calorie content of the different brands of beef and poultry hotdogs.

Beef hotdogs: 186, 181, 176, 149, 184, 190, 158, 139, 175, 148, 152, 111, 141, 153, 190, 157, 131, 149, 135, 132

Poultry hotdogs: 129, 132, 102, 106, 94, 102, 87, 99, 170, 113, 135, 142, 86, 143, 152, 146, 144

Test whether calorie content of poultry hotdogs is lower than the calorie content of beef hotdogs.

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