

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

SUBJECT CODE: 15EC/PC/RM14

M.A. DEGREE EXAMINATION NOVEMBER 2015
BRANCH III – ECONOMICS
FIRST SEMESTER

COURSE : CORE

PAPER : RESEARCH METHODS AND ANALYSIS-I
(THEORY)

TIME : 2 HOURS

MAX.MARKS: 60

SECTION – A

I. Answer any SIX questions. Each question should not exceed 300 words.

(6 X 10 = 60)

1. Briefly describe the different steps involved in a research process.
2. How do you define a research problem? Discuss the main issues which should receive the attention of the researcher in formulation the research problem.
3. Describe some of the important research designs used in experimental hypothesis testing research study.
4. Explain the logic underlying hypothesis testing? Discuss the steps involved in hypothesis testing.
5. Write short notes on:
 - a. Review of Literature
 - b. Inductive methods of reasoning
 - c. Epistemology
6. Discuss the essential tools in drafting a good research report.
7. Throw light on the objectives and importance of research in social sciences.
8. Explain with suitable examples the different sampling techniques.

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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. Describe the data given in Swimmer Database placed at the end of this question paper. Bring out the correlation matrix among the variables Age, Height, Weight, Education and Income. Examine the distribution of the variables Height, Weight & Income.
2. From the Swimmer Database placed at the end of this question paper examine the influence of the variables AGE and Education on Income using appropriate statistical tool. Check if the observed relationship is statistically significant and whether the model is good fit.
3. Consider the gain in weight of 19 female rats (given below) between 28 and 84 days after birth. 12 were fed on a high protein diet and 7 on a low protein diet. Test with appropriate statistical tool whether the rats would all benefit (in terms of weight gain) from a high protein diet in comparison with those on a low protein diet.

High Protein Diet	134	146	104	119	124	161	107	83	113	129	97	123
Low Protein Diet	70	118	101	85	107	132	94					

4. From the Swimmer Database placed at the end of this question paper examine the influence of the variables Gender and Caste on Income using dummy variable regression. Check if there is a significant differential effect belonging to a particular gender or caste. Examine the significance of the interaction effect between caste and gender.

5. Compute the growth rate in Gross Domestic Savings using suitable transformation:

Year	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
GDS	25.1	23.2	23.1	21.5	24.1	23.4	23.5	26.4	29.8	31.8	34.3	34.8

6. A super market that has a chain of stores is concerned about its service quality reputation perceived by its customers. The Table below shows the perceived service quality with regards to politeness of the staff. The number in each cell of the table is percentage of people who have said that the staffs are polite. Perform a two way ANOVA and draw your inferences about the population means of the politeness corresponding to the days, as well as the stores.

Day/Store	A	B	C	D	E
Monday	79	81	74	77	66
Tuesday	78	86	89	97	86
Wednesday	81	87	84	94	82
Thursday	80	83	81	88	83
Friday	70	74	77	89	68

Swimmer Database

Sl. No.	Age	Gender	Weight	Height	Education	Caste	Income	House-Type
1	12	1	25.5	125	7	1	8000	1
2	10	2	23	105	5	1	12000	1
3	11	1	20	100	6	2	13000	2
4	14	1	37	155	9	1	9000	1
5	12	1	20.5	102	7	2	11000	2
6	11	3	29	135	6	2	13100	2
7	12	2	32	145	7	1	10500	1
8	16	2	42	150	11	1	18000	2
9	17	1	38	149	12	2	11500	1
10	15	2	31	145	10	3	29000	2
11	14	1	42	155	9	3	18000	2
12	13	2	32	132	8	3	23000	2
13	11	2	28	129	6	2	12000	1
14	10	1	23	109	5	1	9000	1
15	14	2	42.5	148	8	2	14000	2
16	17	1	99.9	156	12	3	19000	2
17	16	2	48.5	155	11	1	14000	1
18	10	1	23.5	132	5	3	19000	2
19	12	2	22	110	7	1	17000	2
20	15	2	40	122	12	1	14000	2
