SUBJECT CODE: 15EC/PC/RM14

M.A. DEGREE EXAMINATION NOVEMBER 2017
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. What are the major problems encountered by the researchers in social science in India

2. Discuss the purpose and sources of literature review. Throw light on the main issues which should receive the attention of the researcher in formulation the research problem.

3. What are the essential components that has to be taken into account while preparing a survey questionnaire

4. Describe some of the important research designs used in experimental hypothesis testing research study.

5. Write short notes on:
    a. Rules of Syllogism
    b. Contents of research reports

6. What is epistemology and what are its key concerns? Discuss the weaknesses of Naive realism.

7.   Explain with suitable examples the different sampling techniques.

8. Why do you go for hypothesis testing? Explain with example the steps involved in hypothesis testing

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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. **(a)** Find the elasticity of Expenditure on durable goods (Exp_Dg) with respect to Per capita
    Consumption expenditure (PCE).
    (b) Find out the growth rate of expenditure on durable goods for the period 1989 to 2004.
    (c) What would be average expected expenditure on durable goods during the year 2005?

Year	1989	1990	1991	1992	1993	1994	1995	1996
Exp_Dg	504.1	519.3	529.9	542.1	550.7	558.8	561.7	576.6
PCE	4286.8	4322.8	4366.6	4398	4439.4	4472.2	4498.2	4534.1

Year	1997	1998	1999	2000	2001	2002	2003	2004
Exp_Dg	575.2	583.5	595.3	602.4	611	629.5	626.5	637.5
PCE	4555.3	4593.6	4623.4	4650	4692.1	4746.6	4768.3	4802.6

Note :

Exp_Dg   Expenditure on durable goods
PCE   Total personal consumption expenditure

2. 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					

3. For the below given data which is a sample of 30 workers from various regions and gender,
    use Dummy variable regression model and estimate the differential effect of the region and
    gender on the mean salary. Also model the interaction effect to show the differential effect of
    being an Urban Male.   (note: Use Rural Female as reference category)

Obs. No.	Wages	Region*	Gender	Obs. No.	Wages	Gender	Region*
1	19583	SU	F	16	26610	F	SU
2	20263	SU	F	17	30678	F	SU
3	20325	SU	F	18	27170	M	SU
4	26800	SU	M	19	25853	M	SU
5	29470	SU	M	20	24500	M	SU
6	24624	R	F	21	22795	F	R
7	27186	R	F	22	21570	F	R
8	33990	R	M	23	22080	F	R
9	23382	R	M	24	22250	M	R
10	20627	R	M	25	20940	M	R
11	22482	U	F	26	24640	M	U
12	20969	U	F	27	22341	M	U
13	27224	U	F	28	25610	M	U
14	25892	U	M	29	26015	F	U
15	22644	U	M	30	25788	F	U

* U - Urban, SU - Sub-Urban, R - Rural

4. Show the trend of gross domestic saving with appropriate chart. 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

5. 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 appropriate statistical test 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

6. A set of twelve students were given intensive coaching and five tests were conducted in a month. The scores of test 1 and test 5 are given in below. Use appropriate test to find out whether the scores from test 1 to test 5 show any significant difference at 1%, 5% and 10% level of significance.

Student Id	101	102	103	104	105	106	107	108	109	110	111	112
Test 1	50	42	51	26	35	42	60	41	70	55	62	38
Test 5	62	40	61	35	30	52	68	51	84	63	72	50

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