SUBJECT CODE: 11EC/PC/RM24

M. A. DEGREE EXAMINATION, APRIL 2014
BRANCH III – ECONOMICS
SECOND SEMESTER

COURSE: MAJOR – CORE
PAPER   : RESEARCH METHODOLOGY, COMPUTER APPLICATIONS – II
           (THEORY)
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 role of statistics and Mathematics in Economic Research..

2. A bag contains 5 white and 3 black balls. Two balls are drawn at random one after the other without replacement. Find the probability that both balls drawn are Black.

3. What are the various sums of squares involved in determining the value of Coefficient of Determination?

4. Describe the steps involved in formulating and testing hypothesis.

5. Explain the components of Time series.

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

6. Bring out the merits and demerits of different methods of primary data collection.

7. A company sells identical soap in three different wrappings at the same price. The sales for 5 months are given in the following table. Test at 5% level of significance whether the mean soap sales for each wrapping is equal or not.

Wrapping I	Wrapping II	Wrapping III
87	78	90
83	81	91
79	79	84
81	82	82
80	80	88

8. The following table relates to the Tourist arrivals in Chennai(in Lakhs).
   Estimate the Trend by OLS method and forecast the tourist arrival in 2018.

Year	2007	2008	2009	2010	2011	2012	2013
Tourist Arrival	18	20	23	25	24	28	30

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COURSE: MAJOR – CORE
PAPER   : RESEARCH METHODOLOGY, COMPUTER APPLICATIONS – II
             (PRACTICAL)
TIME   : 1 HOUR   MAX. MARKS: 40

1. (a) Test for significance difference in the average enrollment rates of boys and girls in the Indian
         states.
    (b) Capture the inter-state variations in the enrollment rates.
    (c) Test for gender discrimination in the population enrolled in schools.

States	GER of Boys	GER of Girls				
AP	96.05	97.4				
Assam	105.59	104.8				
Bihar	95.4	71.18				
Gujarat	126.44	109.86				
Haryana	80	84.9				
HP	109.27	108.49				
Karnataka	108.4	105.73				
kerala	93.53	93.69				
Mp	135.35	128.74				

2. Twelve students were given intensive coaching and 5 tests were conducted in a month. The scores of
    tests 1 and 5 are given below. Does the score from the test 1 to 5 show an improvement?
    (the value of 't' for 11 d.f. at 5% level of significance is 2.20)

Serial No. of students	Marks in 1st test	Marks in 5th test
1	50	62
2	42	40
3	51	61
4	26	35
5	35	30
6	42	52
7	60	68
8	41	51
9	70	84
10	55	63
11	62	72

3. The data given in the Time series is the Net State Domestic Product of an Indian state for the last 15 years.
Estimate Compound Growth Rate using Semi-Log model.
Also forecast the value for the 20th year.

3,500.00					
3,000.00					
1,800.00					
3,500.00					
6,500.00					
2,300.00					
3,800.00					
5,000.00					
6,000.00					
2,800.00					

4. Use the following data for Output, Labour
And Capital . Estimate the Cobb-Douglas Production
Function $Q = A\ L^{\alpha}\ K^{\beta}$

Output	labor	capital				
38372840	424471	2689076				
1805427	19895	57997				
23736129	206893	2308272				
26981983	304055	1376235				
2.18E+08	1809756	13554116				
19462751	180366	1790751				
28972772	224267	1210229				
14313157	54455	421064				
159921	2029	7188				

5. Draw a Pie diagram representing expenditure on major items of your monthly family expenditure.

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