2013

(December)

COMMERCE

Paper/Course : 203

(Research Methodology & Statistical Analysis)

Full Marks : 80

Time : Three hours

The figures in the margin indicate full marks for the questions.

1.   *(a)*   What is Research Design ? Discuss the utility of Research Design.   4+12

OR

  (b)   Write notes on :   4×4=16

    (i)   Nominal Data

    (ii)   Ordinal Data

    (iii)   Interval Data

    (iv)   Ratio Data.

2. *(a)* Compare and contrast between : 8×2=16

    (i) Measure of Central Tendency *Vs.* Measure of Variation

    (ii) Correlation *Vs.* Regression Analysis.

OR

(b) What is Time Series Analysis ? Find the Trend from the following data :— 6+10=16

Year	Y_1	Y_2	Y_3	Y_4	Y_5	Y_6	Y_7
Sales (Units)	848	675	513	479	500	425	319

3. *(a)* Write a note on the characteristics and applications of

    (i) Binomial Distribution

    (ii) Poison Distribution.   2(4+4)=16

OR

(b) What is Statistical Decision Theory. Discuss the scope of Statistical Decision Theory in Business.   4+12=16

4. *(a)* *(i)* Distinguish between Point and Interval Estimation of Population Mean.   4

(ii) Given that size of sample is 100, average height is 64 inches and sample standard deviation is 3 inches. Estimate : Population Limits of *(A)* Arithmetic Mean, *(B)* Standard Deviation *(C)* Variance.   4+4+4=12

OR

Student	Marks Secured in 1st Test	Marks Secured in 2nd Test
1	23	24
2	20	19
3	19	22
4	21	18
5	18	20
6	20	22
7	18	20
8	17	20
9	23	23
10	16	20
11	19	17

Do the marks give evidence that students have been benefitted by the extra coaching. [Assume that marks in the population are normally distributed]. It is also given For $\gamma = 10$, $t_{0.05} = 2.228$.   16

5. (a) Write about the scope of

  (i) Rank Correlation Test

  (ii) Chi-Square Test

  (iii) Sign Test

  (iv) Median Test.   4×4=16

OR

  (b) Discuss about the steps involved in Report writing. Also highlight the contents of a Research Report.   8+8=16

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