M. Phil (Statistics) (Sem. I) (CBCS) Examination

November / December - 2018

SMT - 1001 : Applied Statistics & Statistical Computing with R

Faculty Code : 003
Subject Code : 14810001

Time : **3** Hours]   [Total Marks : **100**

Instructions :

    (1) Attempt all questions.

    (2) Each question carries equal marks.

1   Describe the EOQ model with static demand for price breaks.

<div align="center">OR</div>

1   The age of ten people are given as 25, 35, 45, 52, 48, 44, 56, 25, 89 and 65. Write R-commands to find mean, median, mode, three quartiles, fifth decile and fiftieth percentile of the age.

2   Write the steps involved in two phase simplex method.

<div align="center">OR</div>

2   The data refer of amount of coffee (in ounces) filled by machine in eight randomly picked jars: 15.1, 14.9, 15.7, 15.9, 16.3, 16.2, 15.7 and 15.9. Write R-programme to test the true means amount of coffee in a jar 16 ounces.

3   Explain North-West corner rule for finding initial solution for transportation problem.

<div align="center">OR</div>

3   Explain how PERT differs from CPM for optimistic time, most likely time and pessimistic time?

4   Which three basic properties must satisfy the linear programming Problem? Explain in detail.

OR

4   Discuss Decision under uncertainty.

5   Discuss the various elements of Queuing models.

OR

5   Discuss the general Inventory model. Also explain role of demand in the development of Inventory models.

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