M.B.A.

(SEM. I) ODD SEMESTER THEORY EXAMINATION 2013-14

QUANTITATIVE TECHNIQUES FOR DECISION MAKING

Time : 3 Hours   *Total Marks : 70*

Note :— Attempt **all** questions from each Section as per instructions.

SECTION—A

Answer **all** parts of this question in **50-75** words. Each part carries **2 marks**.   **(2×7=14)**

1. (a) Why statistics is important for managers ?

    (b) "Statistics is a science counting." Explain.

    (c) What are the steps in decision theory approach ?

    (d) What is meant by measures of central tendency ?

    (e) What are the requisites of a good statistical average ?

    (f) Define the term 'probability'.

    (g) Distinguish between "Independent events" and "Dependent events".

SECTION—B

Attempt any **three** question parts in **100-200** words. Each part carries **7 marks**.   **(7×3=21)**

2. (a) Define statistics and discuss its nature and scope in brief.

(b) Explain the different methods useful for decision making under uncertainty.

(c) What do you understand by dispersion ? Discuss the need and importance of studying dispersion.

(d) What is meant by skewness ? Describe the methods of measuring skewness.

(e) What is normal distribution ? Discuss its major characteristics.

SECTION—C

Attempt all questions in **300-500** words. Each question carries 7 marks. **(7×5=35)**

3. "Statistics are numerical statement of facts, but all facts numerically stated are not statistics." Discuss and point out briefly which numerical statement of facts are statistics ?

OR

Under an employment promotion it is proposed to allow role of newspapers on buses during off peak hour. The vendor can purchase the papers at a special concessional rate of 25 paisa and resell it for 40 paisa (a piece). Any unsold copy is a dead loss. A vendor has estimated the following probabilities for the number of copies demanded :

No. of copies	15	16	17	18	19	20
Probability	0.04	0.19	0.33	0.26	0.11	0.07

Prepare payoff table and find out how many copies should be ordered so that his expected profits will be maximum.

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4. Calculate mode from the following series :

Class Interval	f
0 — 9	32
10 — 19	36
20 — 29	20
30 — 39	30
40 — 59	48
60 — 79	24
80 — 99	2

OR

In the frequency distribution of 100 families given below, the number of families corresponding to expenditure groups 20—40 and 60—80 are missing from the table. However, the median is known to be 50. Find the missing frequencies :

Expenditure (Rs.)	No. of families
0 — 20	14
20 — 40	?
40 — 60	27
60 — 80	?
80 — 100	5

5. From a pack of 52 cards, 6 cards are drawn at random. Find the probability of the following events :

(a) Three cards drawn are red and three are black.

(b) Three cards drawn are kings and three are queens.

OR