BUSINESS STATISTICS - 2009

Note: Attempt all questions.

Section-A

1. Select the correct answer. Attempt any five questions out of the following:

(i) "Statistics is the science of counting." Whose statement is this among the following?
   (a) Bowley
   (b) Kimbal
   (c) Boddinglon
   (d) King

(ii) From the following point which one is correct ?
   (a) Statistics is helpful in administration
   (b) Statistics is helpful in business
   (c) Statistics is helpful in economic analysis
   (d) Statistics is helpful in above all activities

(iii) The error which do not occur in the censes investigation are:
   (a) sampling
   (b) non-sampling
   (c) biased
   (d) unbiased

(iv) When two types of information is obtained from a table, then it is called:
   (a) simple table
   (b) treble
   (c) double table
   (d) manifold or higher order table

(v) The arithmetic mean of the observations: 9, 8, 27, 36, 45 is:
   (a) 18
   (b) 25
   (c) 36
   (d) 45

(vi) Which statement is not true?
   (a) $Q_2 = D_5 = P_{50}$
   (b) $Q_3 = P_{75}$
   (c) $D_8 = P_{80}$
   (d) $Q_1 = P_1 = D_1$

(vii) The measurement based on all values of the series is :
   (a) Range
   (b) Standard deviation
   (c) Quartile deviation
   (d) All of the above

(viii) Correlation coefficient is always:
   (a) more than 1
   (b) less than – 1
   (c) between – 1 and + 1
   (d) more than 0

Section-B

Note: Answer any three of the following in brief.

2. Discuss limitations or statistics.

3. Explain the use of statistics for economic analysis and planning.

4. Classify the methods generally employed in the collection of statistical data.

5. Define average and explain its properties.

6. Define skewness. Discuss the various measures of skewness giving examples where necessary.

Section-C

Note: Attempt any three questions.

7. Calculate median and arithmetic mean from the following data:

Marks (below)	No. of Students
10	20
20	44
30	76
40	104
50	126
60	144
70	182
80	192
90	200

8. Prepare a discrete frequency distribution from the following data:

8, 12, 15, 15, 12, 15, 20, 22, 15, 25
30, 15, 10, 15, 27, 20, 30, 15, 10, 15

9. Data regarding lives of two new models of refrigerators collected in a recent survey are:

Life (in years)	Model A	Model B
0-2	5	2
2-4	16	7

4-6	13	12
6-8	7	19
8-10	5	9
10-12	4	1

What is the average life of each model of these refrigerators? Which model has greater uniformity?

10. Calculate coefficient of correlation from the following data:

X	Y
28	23
37	32
40	33
38	34
35	30
33	26
40	29
32	31
34	34
33	38

11. What is interpolation? Explain its importance.