

DE-3947

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## DISTANCE EDUCATION

B.C.S. DEGREE EXAMINATION, DECEMBER 2008.

## BUSINESS STATISTICS

(1999 onwards)

Time : Three hours

Maximum : 100 marks

PART A — (5 × 8 = 40 marks)

Answer any FIVE questions.

1. Mention the importance of Statistics in Modern Business.
2. Define classification and tabulation and show their importance in statistical studies.
3. Distinguish continuous data from discrete data with apt examples.
4. Explain the various types of diagrams.
5. Calculate the median from the following data :

Marks :        10 – 25   25 – 40   40 – 55   55 – 70   70 – 85   85 – 100

Frequency :     6            20            44            26            3            1

6. Calculate weighted arithmetic mean :

Product	Price (per kg) Rs.	Quantity (W)
$P_1$	14.75	7
$P_2$	15.65	6
$P_3$	13.50	4
$P_4$	12.75	5
$P_5$	18.25	3

7. Calculate coefficient of correlation :

X:	12	9	8	10	11	13	7
Y:	14	8	6	9	11	12	13

8. Calculate Fisher' ideal index number from the data :

	1900		1991	
	Qty.	Price	Qty.	Price
A	10	3	8	3.25
B	20	15	15	20
C	2	25	3	23

PART B — ( $4 \times 15 = 60$  marks)

Answer any FOUR questions.

All questions carry equal marks.

9. Explain the difference between collection of data through questionnaires and schedules.

10. From the following data calculate the mean, geometric mean and Harmonic mean :

Weights (kg)	115	120	125	140	155	175	185	195	187
No. of bags :	4	6	4	3	5	7	9	2	5

11. Calculate Bowley's coefficient of Skewness from the following data :

Age :	0-10	10-20	20-30	30-40	40-50
No. of persons :	8	11	26	9	6

12. Calculate the correlation coefficient between height of father and son from the given data :

Height of Father (in inches) :	64	65	66	67	68	69	70
Height of son (in inches) :	66	67	65	68	70	68	72

13. Calculate the coefficient of rank correlation of 10 students in two subjects :

Statistics : 3 5 8 4 7 10 2 1 6 9

Economics : 6 4 9 8 1 2 3 10 5 7

14. Find the Standard Deviation :

Marks :            20–29   30–39   40–49   50–59

No. of Students :    5        12        15        19

Marks :            60–69   70–79   80–89   90–99

No. of students :    18        10        6        5

15. (a) Explain the components of time series.

(b) What are the various methods of estimating the trend components?

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