E 1102 (Pages : 3) Reg. No.....

Name.....

B.Com. DEGREE (CBCSS) EXAMINATION, NOVEMBER 2010

First Semester

Core Course I—BUSINESS STATISTICS

(Common for Model I, Model II and U.G.C. Sponsored B.Com. Programmes)

Time : Three Hours Maximum Weight : 25

Section A

Answer **all** *questions.*
Each bunch of four questions carries a weight of 1.

I. Choose the correct answer from the choices given :

1. The sum of squared deviations from arithmetic mean is :

   (a) Alaways zero. (b) Greater than zero.

   (c) Less than zero. (d) Always minimum.

2. To measure Intelligence Quotient, we should use :

   (a) Mean. (b) Quartile.

   (c) Mode. (d) Median.

3. The unweighted price index gives more importance to items having :

   (a) More price. (b) Less Price.

   (c) Changing price. (d) Stationary price.

4. The trend in linear if :

   (a) the growth is geometrical. (b) growth rate is constant.

   (c) growth is not constant. (d) rate of growth is positive.

II. Fill in the blanks :

5. The difference between the values of extreme items of a series is called ————.

6. The consecutive addition of frequencies is called ————.

7. There are ———— quartiles in a series.

8. Median is a ———— average.

III. State whether the following statements are True or False :—

9. If the concentration in the centre of a distribution is comparatively less, the curve becomes platykurtic.

10. Bowley's coefficient of Skewness is also known as fourth measure of skewness.

11. Standard deviation is an absolute measure of dispersion.

12. Mode is not affected by the values of extreme items.

IV. Match the following :—

13. Statistic	(a) Bulginess.
14. Lack of symmetry	(b) Moving Average.
15. Kurtosis	(c) Sample.
16. Commercial average	(d) Index numbers.
	(e) Harmonic mean.
	(f) Skewness.
	(g) Geometric mean.

(4 × 1 = 4 weight)

Section B

Answer any **five** *questions.*
Each question carries a weight of 1.

17. What do you mean by circular text ?

18. What is coefficient of range ?

19. What is the Geometric mean of 2, 4, 8 ?

20. How is Geometric mean calculated ?

21. An acroplane flies along the four sides of a square at varying speeds of 200, 400, 600, 800 miles per hour respectively. What is the average speed of the plane in its flight around the square ?

22. What is Skewness ?

23. Mean = 45, median = 48 and coefficient of skewness = – 0.5. Find out the standard deviaiton.

24. What do you mean by time-series ?

(5 × 1 = 5 weight)

Section C

Answer any **four** *questions.*
Each question carries a weight of 2.

25. Why is artihmetic mean considered to be the best average ?

26. Find Geometric mean from the following data :—

Daily Income ...	0 – 20	20 – 40	40 – 60	60 – 80	80 – 100
No. of Workers ...	5	7	12	8	4

27. Explain the utility of consumer price indices.

28. Calculate the first four central moments for the values given below :

    1, 3, 7, 9, 10.

29. For a set of 7 observtions, mean = 60. Sum of squared deviation from mean is 184. Find the coefficient of variation.

30. Calculate the cost of living index number :

Group		*Index number*	*Weights*
Food	...	350	10
Fuel	...	150	2
Cloting	...	200	2
Rent	...	150	2
Miscellaneous	...	225	4

(4 × 2 = 8 weight)

Section D

Answer any **two** *questions.*
Each question carries a weight of 4.

31. From the following data calculate Laspeyre's, Paasche's and Fisher's Index numbers :—

Items		Base Year		Current Year	
		Price (*Rs.*)	Quantity	Price (*Rs.*)	Quantity
A	...	6	50	10	56
B	...	2	100	2	120
C	...	4	60	6	60
D	...	10	30	12	24
E	...	8	40	12	36

32. From the following data, fit a straight line trend, and find out the trend values for all the years :

Year	...	2001	2002	2003	2004	2005	2006	2007
Value	...	60	72	75	65	80	85	95

33. The scores of two batsmen X and Y in six innings during a cricket match are as follows :

Batsman X	...	10	12	80	70	60	100	0	4
Batsman Y	...	8	9	7	10	5	9	10	8

Examine which of the two batsmen is more consistent in scoring.

(2 × 4 = 8 weight)