Reg. No……..…….………… Name……………...………….….

BCOM DEGREE EXAMINATION - OCTOBER 2015

SEMESTER – **1: COMMERCE (CORE)**

COURSE 1 -**U1CRCOM1: BUSINESS STATISTICS**

(Supplementary / Improvement)

Time: Three Hours   Max. Marks: 75

Section A

I.   Answer all questions

1. By ………………...........of statistics, we mean lack of Confidence in statistical statements and statistical methods.

2. ………………………… is often said to be the value which occurs most frequently.

3. A distribution in which the value of mean, median and mode coincide is known as ……………………….. distribution.

4. If Q_1=30 and Q_3=50, the coefficient of quartile deviation shall be ……………………..

5. The variance is equal to square of ………………………..

6. ……………………… measures the direction of variation.

7. If a normal curve has β_2=3, it is called ………………………..

8. ……………….. index is the geometric mean of the Laspeyre and Paasche indices.

9. The General tendency of the data to grow or decline over a long period of time is technically called ----------------------

10. The line obtained by the method of least squares is known as the line of…………………

(1 x 10=10)

Section B

II.   Answer any **eight** of the following.

11. Give any two limitations of Statistics.

12. What is geometric mean?

13. What are the mathematical property of median?

14. Distinguish between dispersion and skewness.

15. Give any two characteristics of Index Numbers.

16. What are Cyclical Variations?

17. In a moderately skewed distribution, the mode and the means are32.1 and 35.4 respectively. Calculate median.

18. Arithmetic mean of 100 item is 34. At the time of Calculations three items 118, 70 and 19 were wrongly taken as 180, 17 and 90 respectively. What is the correct mean?

19. Calculate the range and its Coefficient from following data.

(Price of gold per 10 gram from Mon. to Sat. in Dec. 2013)

Mon	Tue	Wed	Thus	Fri	Sat
25600	25300	26100	24890	25660	23900

20. Construct the cost of living index number:

Group	Index	Weight
Food	352	48
Fuel and Lighting	220	10
Clothing	230	08
Rent	160	12
Miscellaneous	190	15

(2 x 8 =16)

Section C

III   Answer any **five** of the following as short essay of 3 to 4 paragraphs.

21. Explain the functions of Statistics.

22. What are the requisites of a good average?

23. Explain the problems in the construction of Index numbers.

24. A Contractor employs three types of workers- male, female and children. To a male worker he pays Rs. 90 per day, to a female worker Rs. 60 per day and to a child

worker Rs.30 per day. What is the average wage per day paid by the contractor if the number of workers in each type is 10?

25. Obtain the Standard deviation for the data on scores given below.

Score	No. of Students
0-10	10
10-20	15
20-30	25
30-40	25
40-50	10
50-60	10
60-70	05

26. Find the missing frequency from the following data if the average marks is 16.82.

Marks	Frequency
0-5	10
5-10	12
10-15	16
15-20	?
20-25	14
25-30	10
30-35	08

27. Compute mean deviation about median from the following frequency distribution.

Size	5	8	13	20	25	30	40
Frequency	2	10	20	35	18	7	5

(5 x 5=25)

Section D

IV   Answer any **two** questions

28. Explain the components of a time series.

29. Compute 3-yearly moving average for the following series.

Year	Production(in lakh tones)
1994	17.2
1995	17.3
1996	17.7
1997	18.9
1998	19.2
1999	19.3
2000	18.1
2001	20.2
2002	25.3
2003	24.9
2004	23.2
2005	24.3
2006	25.2
2007	26.3
2008	27.3

30. From the following data, Calculate price index numbers for 2012 with 2000 as base by
    a. Laspayre's method.   b. Paasche's method. c. Fisher's ideal index method

Commodity	2000		2012	
	Price	Quantity	Price	Quantity
A	20	8	40	6
B	50	10	60	5
C	40	15	50	15
D	20	20	20	25

31. Calculate mode from the following data.

Class	Frequency	Class	Frequency
10-20	4	60-70	22
20-30	6	70-80	24
30-40	5	80-90	6
40-50	10	90-100	2
50-60	20	100-110	1

(2 x 12=24)

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