B.COM DEGREE (C.B.C.S.S.) EXAMINATION, NOVEMBER 2014
FIRST SEMESTER
COM1BS – CORE I – BUSINESS STATISTICS

Time: Three Hours   Maximum: 80 Marks

Part A (Short Answer Questions)
Answer all questions. Each question carries 1 mark

1. What is moving average?

2. Define Index numbers.

3. What is an irregular variation?

4. Define Kurtosis.

5. State the formula to find out Range.

6. What is consumer price index?

7. What do you mean by assumed mean?

8. State any 2 merits of Arithmetic Mean.

9. What is Quartile Deviation?

10. What do you mean by Skewness?

(10 x 1 = 10)

Part B (Brief Answer Questions)
Answer any **eight** questions. Each question carries 2 marks.

11. What are the limitations of Statistics?

12. State any 3 methods of dispersion.

13. What are the characteristics of an ideal average?

14. What are the advantages of Standard Deviation?

15. Compare the measures of central tendency and state their differences.

16. What are the merits and demerits of Harmonic Mean?

17. What are the uses of Index Numbers?

18. Find Geometric Mean from the following: 5, 10, 20

(P.T.O)

19. Find the Range and the Co-Efficient of Range for the following values.

25, 32, 85, 32, 42, 10, 20, 18, 28

20. The mean and the standard deviation of 20 items are found to be 10 and 2 respectively. At the time of checking, it was found that one item 8 was incorrect. Calculate AM and S.D if the wrong item is replaced by 12.

21. From the following data construct an index for the year 2013 taking 2012 as the base

Commodity:	A	B	C	D	E
Price in 2012 (Rs.):	50	40	80	110	20
Price in 2013 (Rs.):	70	60	90	120	20

22. From the following data of the wages of 7 workers compute the Median wage.

Wages (in Rs.):   1100   1150   1080   1120   1200   1160   1400

(8 x 2 = 16)

Part C (Short Essay)
Answer any **six** questions. Each question carries 4 marks.

23. Karl Pearson's co-efficient of Skewness is -0.7 and the value of Median and S.D are 12.8 and 6 respectively. Find the value of Mean.

24. What is trend? How they are measured by different methods in time series?

25. Calculate mean deviation about median for the following data.

x:	10	11	12	13	14
f:	3	12	18	12	3

26. Find quartiles from the following values.

33   37   30   47   60   87   15   30   45   43   44

27. Find mode

23, 35, 28, 42, 62, 53, 35, 28, 42, 35, 42, 35

28. State the merits and demerits of Mean Deviation.

29. Explain time reversal test and factor reversal test in respect of index numbers.

30. Find the missing frequency from the following data:

Marks:	0-5	5-10	10-15	15-20	20-25	25-30	30-35
Frequency:	10	12	16	?	14	10	8

Mean mark is 16.82

31. Discuss the method of locating Mode graphically. (6 x 4 = 24)

Part D (Essay)
Answer any **two** questions. Each question carries 15 marks

32. Compute index numbers from the following data using Fischer's formula and prove whether it satisfies the time reversal test and the factor reversal test.

Commodity	2000		2001	
	Price	Expenditure	Price	Expenditure
A	8	80	10	120
B	10	120	12	96
C	5	40	5	50
D	4	56	3	60
E	20	100	25	150

33. Compare Relative Measures and Absolute Measures of dispersion.
34. Using Quartile, compare the following two series and state which is more variable.

Series 1: 5   10   27   90   38   56   29   43   39   86   30

Series 2: 10   27   15   35   89   72   28   40   45   28   39

35. Given below is the distribution of marks. If 60% of students pass the test, find the minimum marks obtained by a pass candidate.

Marks: 10-20 20-30 30-40 40-50 50-60 60-70

Frequency: 10   20   10   7   2   1   (2 x 15 = 30)