



Reg. No. :

Name :

First Semester B.B.A. Degree Examination, January 2016
(Career Related First Degree Programme Under CBCSS)
Complementary Course
BM 1131 – BUSINESS STATISTICS
(2013 Admission)

Time : 3 Hours

Max. Marks : 80

SECTION – A

Answer **all** questions in **one** word or **two** sentences. **Each** question carries **1** mark.

1. Define statistics.
2. What is median ?
3. Define harmonic mean.
4. What is skewness ?
5. What is meant by time series ?
6. What do you mean by interpolation ?
7. What do you mean by regression analysis ?
8. What do you mean by dependent events ?
9. What is meant by dispersion ?
10. What is GM ?

(10×1=10 Marks)

SECTION – B

Answer **any 8** questions, **not** to exceed **one** paragraph. **Each** question carries **2** marks.

11. List the limitations of statistics.
12. List the characteristics of a good average.



13. The following gives the marks obtained by 10 students at an examination :

Roll Nos. :	1	2	3	4	5	6	7	8	9	10
Marks obtained :	43	48	55	57	21	60	37	48	78	59

Calculate the arithmetic mean.

14. What do you mean by mode ?

15. What is the empirical relationship between mean, median and mode ?

16. Define dispersion.

17. List the properties of a good measure of dispersion.

18. What do you mean by mean deviation ?

19. What is meant by SD ?

20. In a certain distribution the following results were obtained

$$x = 45.00; \quad \text{Median} = 48.00$$

$$\text{Coefficient of Skewness} = -.4$$

You are required to estimate the value of standard deviation.

21. What is Mesokurtic curve ?

22. What do you mean by partial correlation ?

(8×2=16 Marks)

SECTION – C

Answer **any 6** questions, **not** to exceed **120** words. **Each** question carries **4** marks.

23. From the following data find the value of median :

Income (Rs.) :	1000	1500	800	2000	2100	1700
No. of Persons :	24	26	14	10	5	28

24. Calculate mode from the following data :

Mark	No. of students	Marks	No. of students
Above 0	80	Above 60	28
Above 10	77	Above 70	16
Above 30	65	Above 80	10
Above 40	55	Above 90	8
Above 50	43	Above 100	0



25. Calculate Geometric Mean of the following distribution.

X :	70	100	103	107	149
f :	10	12	8	5	5

26. The following table gives weights of 31 persons in a sample enquiry.

Calculate mean by using Harmonic mean.

Weight (in lbs) :	130	135	140	145	146	148	149	150	157
No. of persons :	3	4	6	6	3	5	2	1	1

27. Briefly explain the functions of statistics.

28. From the following frequency distribution calculate standard deviation and mean.

Income	No. of persons
Above 0	150
Above 10	140
Above 20	100
Above 30	80
Above 40	80
Above 50	70
Above 60	30
Above 70	14
Above 80	0

29. Briefly explain the classical approach to probability.

30. The first four central moments of a distribution are 0, 2.5, 0.7 and 18.75. Test the skewness and kurtosis of the distribution.

31. Calculate Quartile Deviation and its coefficient from the following data.

Marks	Students
0 - 10	11
10 - 20	18
20 - 30	25
30 - 40	28
40 - 50	30
50 - 60	33
60 - 70	22
70 - 80	15
80 - 90	22

(6×4=24 Marks)



SECTION - D

Answer any two questions. Each question carries 15 marks.

32. From the following information calculate standard deviation, mean and coefficient of variation.

Temperature	No. of days
- 40 to - 30	10
- 30 to - 20	28
- 20 to - 10	30
- 10 to 0	42
0 to 10	65
10 to 20	180
20 to 30	10

33. Calculate Bowley's co-efficient of skewness from the following data.

Commission (Rs.)	No. of Salesmen
100 - 120	4
120 - 140	10
140 - 160	16
160 - 180	29
180 - 200	52
200 - 220	80
220 - 240	32
240 - 260	23
260 - 280	17
280 - 230	7

34. What do you mean by statistics ? Explain the characteristics and functions of statistics.
35. What do you mean by dispersion ? And also explain the various methods of studying dispersion. **(2×15=30 Marks)**
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