



Reg. No. : .....

Name : .....

**First Semester B.B.A. Degree Examination, January 2014**  
**Career Related First Degree Programme Under CBCSS**  
**Group 2(b)**  
**Complementary Course**  
**BM 1131 : BUSINESS STATISTICS**  
**(2013 Admission)**

Time: 3 Hours

Total Marks: 80

**SECTION – A**

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

1. What do you mean by statistics ?
2. List out any two business applications of statistics.
3. Define data.
4. What is primary data ?
5. Who is an investigator ?
6. What is qualitative classification ?
7. Define Mode.
8. What do you mean by a relative measure of dispersion ?
9. What is an asymmetrical distribution ?
10. Describe in brief on mutually exclusive events. **(1×10=10 Marks)**

**SECTION – B**

Answer **any eight** questions (not exceeding **one** paragraph). Each question carries **2** marks.

11. Explain the relationship between statistics and economics.
12. List out any four functions of statistics.
13. What is law of statistical regularity ?



14. What are the different types of tables ?
15. Below given are the monthly expenses of 10 families in a housing colony. Calculate Arithmetic Mean.
- Expenses** : 8000, 12000, 14000, 9000, 12000, 7000, 18000, 13000, 6000, 8000.
16. Following are the prices of shares of Alpha Ltd. from Monday to Saturday.

Day	Price (Rs.)
Monday	400
Tuesday	410
Wednesday	408
Thursday	360
Friday	420
Saturday	450

Calculate Range and its coefficient.

17. Mr. X travelled by motor car for 3 days. He covered 960 kms each day. He drove the first day 10 hrs at 96 kms. per hour, the second day 12 hours at 80 kms. per hour and the third day 15 hours, at 64 kms. per hour. What was his average speed ?
18. Mean = 100, Median = 90, SD = 10.  
Calculate coefficient of skewness.
19. Write Bowley's formula for calculating coefficient of skewness and explain.
20. Explain the additions theorem of probability.
21. A bag contains 10 red and 20 blue cards; a card is drawn at random. What is the probability that it is red ?
22. What do you mean by biased errors ? (2×8=16 Marks)

#### SECTION – C

Answer **any six** questions (not exceeding 120 words.) Each question carries 4 marks.

23. Explain the concept law of inertia of large numbers.
24. What is a questionnaire ? List out its limitations.



- 25. Distinguish between dispersion and skewness.
- 26. Box A contains 3 white and 4 red balls. Box B contains 4 white and 5 black balls. If a box is chosen at random and a ball is drawn from it, what is the probability that the ball so drawn is a white one ?
- 27. An electronic device is made up of three components A, B and C. The probability of the failure of component A is 0.01, that of B is 0.1 and that of C is 0.02 in some fixed period of time. Find the probability that the device will work satisfactorily during that period of time assuming that the three components work independently of one another.

28. Compute quartile deviation from the following data :

Height in inches	No. of students
58	15
59	20
60	32
61	35
62	33
63	22
64	20
65	10
66	8

29. Compute coefficient of skewness from the following values.

Median = 18.8, Q1 = 14.6, Q3 = 25.2.

30. Form a frequency distribution by taking suitable class interval for the following data giving the ages of 50 employees in a firm.

- 30 45 48 55 39 25 31 19 18 21 54 59 51
- 33 43 44 10 38 19 26 47 35 37 41 46 33
- 51 37 58 58 18 19 23 26 29 38 57 36 35
- 44 43 27 31 43 22 31 47 34 18 15

31. What is Geometric mean ? Explain its merits and limitations.

(4×6=24)



Marks)

## SECTION - D

Answer any two questions (long essay). Each question carries 15 marks.

32. Define statistics. Explain its limitations.

33. Draw a multiple bar diagram from the following data :

Year	Sales	Gross Profit	Net Profit
2009	120000	40000	20000
2010	135000	45000	30000
2011	140000	55000	35000
2012	150000	60000	40000

34. Find the median and quartiles from the following data :

Monthly Income	No. of Persons
Below 50	35
50 - 60	24
60 - 70	21
70 - 80	18
80 - 90	6
90 and above	3

35. A company has to select an accountant from 50 persons. 20 of them women and 30 men, 10 of them know Tally and 40 not, 15 of them have experience and the remaining 35 not. What is the probability for selecting an experienced tally knowing woman accountant ?

(15×2=30 Marks)