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Reg. No. :

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

Time : 3 Hours

Max. Marks : 80

SECTION – A

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

- 1) What does statistics mean in singular sense ?
- 2) Mention two uses of statistics.
- 3) Define primary data.
- 4) What is stub ?
- 5) Determine median for the following values :
110, 115, 140, 117, 109, 113, 120
- 6) Define Quartile deviation.
- 7) What is correlation coefficient ?
- 8) List the methods of studying correlation.
- 9) Write the two regression equations.
- 10) Find the number of ways 6 books can be arranged taking all the books at a time.
(1×10=10 Marks)

SECTION – B

II. Answer **any 8** questions. **Each** question carries 2 marks.

- 11) Mention two characteristics of statistics.
- 12) How statistics is useful in business and commerce ?
- 13) What is a histogram ?
- 14) What is a frequency distribution ?

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- 15) Calculate range from the following :
25, 32, 85, 32, 42, 10, 20, 18, 28
- 16) Compute Geometric Mean of :
83, 65, 135 and 20
- 17) For what purpose regression line of 'y' on 'x' is used ?
- 18) From a bag containing 7 white, 8 black and 5 red balls, a ball is drawn. What is the probability that it is black ?
- 19) Given the probability of defective screws is $\frac{1}{6}$. Find the mean for the binomial distribution of defective screws in a total of 180.
- 20) Total of deviations of the item from the mean = 64; number of item = 7. Calculate mean deviation.
- 21) What is skewness ?
- 22) Mean 27 Median 29 compute mode. (2×8=16 Marks)

SECTION – C

III. Answer any six questions. Each question carries 4 marks.

- 23) State the limitations of statistics.
- 24) What are the objectives of classification ?
- 25) A student secured the following percentage of marks.
English : 60, Hindi : 75, Maths : 63, Accounting : 60, Management : 55.
Compute the weighted mean if the weights are 1, 1, 2, 3, 3 respectively allotted to subjects.
- 26) From the following determine the value of mode :
- | | | | | |
|-----------------|------------|----------|----------|----------|
| Marks | : 0 – 10, | 10 – 20, | 20 – 30, | 30 – 40, |
| No. of students | : 5 | 7 | 8 | 20 |
| Marks | : 40 – 50, | 50 – 60, | 60 – 70, | 70 – 80 |
| No. of students | : 10 | 6 | 2 | 2 |
- 27) Calculate standard deviation from the following :
- | | | | | | |
|-----------|------|----|----|----|----|
| size x | : 10 | 12 | 14 | 16 | 18 |
| frequency | : 2 | 4 | 10 | 3 | 1 |



28) Find quartile deviation :

28, 32, 25, 42, 55, 82, 10, 25, 40, 38, 39

29) Calculate Karl Pearson's co-efficient of correlation from the following data :

X	:	3	4	5	6	7
Y	:	5	6	7	8	9

30) You are given the following data :

	X	Y
Arithmetic mean	36	85
Standard deviation	11	8

Correlation coefficient of X and Y = 0.66
Find the regression equation of Y on X.

31) State the addition theorem of probability.

(4×6=24 Marks)

SECTION – D

IV. Answer **any 2** questions. **Each** question carries **15** marks.

32) Why visual presentation of data is important ? Explain the different type of diagrams used in data presentation.

33) Calculate mean wages of the laboures from the following :

Wages (Rs.)	: Above 0;	Above 10;	Above 20;	Above 30;
No. of labours	: 675	625	550	450
Wages (Rs.)	: Above 40;	Above 50;	Above 60;	Above 70
No. of labours	: 275	150	75	25

34) What is correlation ? What would be your interpretation if correlation coefficient 'r' is equal to (a) 0 (b) -1 (c) + 1 (d) .2 (e) .9 (f) .52. Discuss the applications of correlation in business.

35) A can solve 90 percent of the problems of a book. B can solve 70 percent. What is the probability that at least one of them will solve a problem selected at random ?

(15×2=30 Marks)