

Roll No.

BBA-206(N)

B. B. A. (Second Semester) EXAMINATION, May, 2012

(New Course)

Paper Sixth

BUSINESS STATISTICS

Time : Three Hours] [Maximum Marks : 70

Note : Attempt any ten questions from Section A and any two questions from Section B.

Section – A

5 each

Note : Attempt any ten questions.

1. Discuss briefly the role of statistical methods in Economic planning and Business management.
2. Distinguish between primary and secondary data. Discuss the various methods of collecting primary data.
3. Find the median and mode of the following data :

C. I. (Income)	f (No. of workers)
10 – 19	7
20 – 29	15
30 – 39	18
40 – 49	25
50 – 59	30
60 – 69	20
70 – 79	16
80 – 89	7
90 – 99	2

P. T. O.

4. Find the Mean and Standard deviation of the following data :

C. I.	<i>f</i>
5-10	8
10-15	18
15-20	42
20-25	62
25-30	30
30-35	10
35-40	4

5. What do you understand by 'SKEWNESS' and 'KURTOSIS' ? Explain in detail with their various types. Point out their role in analysing the frequency distribution.
6. Define the term "CORRELATION". Explain the concept of positive and negative correlation.
7. What do you mean by "REGRESSION ANALYSIS" ? How many types of regression lines are there ?
8. Certain data was collected from 10 students for their marks in Statistics and Economics :

Statistics	Economics
10	12
25	22
13	16
25	15
22	18
11	18
12	17
25	23
21	24
20	17

Find the Karl Pearson's coefficient of correlation and explain the answer.

9. From the regression equations :

$$3x - 2y - 10 = 0$$

and

$$24x - 25y + 145 = 0$$

find :

- (i) Mean values of x and y
 - (ii) Regression coefficients
 - (iii) Coefficient of correlation
10. (a) Define "ADDITION" and "MULTIPLICATION" theorems of probability. 2
- (b) A card is drawn from a well shuffled pack of playing cards. What is the probability that it is either spade or king ? 3
11. (a) Define Baye's theorem. 2
- (b) 20% of the employees of a company have been to Business school, of these employees, 80% hold the administrative positions. Out of those employees who have not been to Business school, 30% hold the administrative positions. If an employee is selected at random from administrative staff, what is the probability that he had gone to a Business school ? 3
12. Write short notes on the following :
- (i) Methods of sampling
 - (ii) Sampling and non-sampling errors

Note : Attempt any *two* questions.

13. Define the following terms in brief :

- (i) Level of significance
- (ii) Type I and Type II errors
- (iii) One tailed and two tailed tests
- (iv) Degree of freedom and standard error

14. (a) Define the probability distribution. Explain in brief the following :

- (i) Binomial distribution
 - (ii) Poisson distribution
- (b) The probability of getting a defective screw from certain factory is $1/7$. If a sample of 180 screws is drawn, then apply binomial distribution to find mean and standard deviation.

15. Find the two regression lines for the following data :

X	Y
6	9
2	11
10	5
4	8
8	7