

**S.D.E.**  
**B.B.A. SEM-II ( CBCS - 2018 COURSE) : SUMMER - 2019**

**SUBJECT : BUSINESS STATISTICS**

Day : Wednesday  
Date : 08/05/2019

**S-2019-4885**

Time : 10.00 AM TO 01.00 PM  
Max. Marks : 70

**N.B.:**

- 1) Attempt **ANY THREE** questions from Section – I and **ANY TWO** questions from Section – II.
- 2) Answers to both the sections should be written in **SAME** answer book.
- 3) Use of non-programmable **CALCULATOR** is allowed.
- 4) Statistical tables will be provided if necessary.
- 5) Figures to the right indicate **FULL** marks.

**SECTION – I**

**Q.1** Define the term ‘regression’. Explain the importance of regression lines. [14]

**Q.2** An incomplete distribution is given below: [14]

Wages	0 – 10	10 – 20	20 – 30	30 – 40	40 – 50	50 – 60	60 – 70
No. of workers	10	20	?	40	?	25	15

Find missing frequencies when total frequency is 170 and median is 35.

**Q.3** In a certain interview, there were 150 candidates of which 80 were boys, 40 candidates were successful among them 15 were boys. Calculate Yule’s Coefficient of Association. [14]

- Q.4** a) A bag contains 6 white, 4 red and 10 black balls, two balls are drawn at random. Find the probability that they will be both black. [07]  
b) A bag contains 8 white and 4 red balls. Five balls are drawn at random. What is the probability that 2 of them are red and 3 white? [07]

**Q.5** Write short notes on **ANY TWO** of the following: [14]  
a) Association of attributes  
b) Applications of statistics  
c) Measures of dispersion

**SECTION – II**

**Q.6** Compute the correlation coefficient for the following data: [14]

Supply	35	20	61	55	32	43
Demand	19	23	37	41	59	67

**Q.7** The equations of two regression lines are: [14]  
 $2X + 3Y = 18$  and  $3X + 4Y = 25$   
Find:  
a) Means of X and Y   b) Regression coefficients   c) Correlation coefficient

**Q.8** Find standard deviation of the following distribution: [14]

Age (years)	20 – 25	25 – 30	30 – 35	35 – 40	40 – 45	45 – 50
No. of persons	170	110	80	45	40	35

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