

S.D.E.
B.B.A. (2006 Course) Sem- III : SUMMER - 2019
SUBJECT: BUSINESS STATISTICS - II

Day : Tuesday
Date : 14/05/2019

S-2019-4900

Time 02.00 PM TO 05.00 PM
Max. Marks : 80

N.B.:

- 1) Attempt Any **FIVE** Questions from Section – I and Any **TWO** from Section - II
- 2) Figures to the right indicate **FULL** marks.
- 3) Answers to both sections should be written in the *SAME* Answer Books.
- 4) Use of Non-Programmable **CALCULATOR** is allowed.
- 5) Use of **Statistical Tables** and **Graph Papers** are allowed.

SECTION – I

- Q.1.** What is correlation? Discuss different methods of studying correlation. (10)
- Q.2.** Explain different forecasting techniques with suitable examples. (10)
- Q.3.** Discuss the procedure of hypothesis testing. (10)
- Q.4.** Four cards are drawn at random from a pack of 52 cards. Find the probability that (10)
- i) They are king, a queen, a jack and an ace
 - ii) Two are kings and two are aces
 - iii) All are diamonds
 - iv) Two are red and two are black
- Q.5.** Suppose that a central university has to form a committee of 5 members from a list of 20 candidates out of whom 12 are teachers and 8 are students. If the members of the committee are selected at random, what is the probability that the majority of the committee members are students? (10)
- Q.6.** What do you mean by association attributes? Explain briefly the different methods of measuring association between two attributes. (10)
- Q.7.** Write Short notes on Any **TWO** of the following: (10)
- a) Type I and Type II error
 - b) Sampling
 - c) Regression

SECTION - II

- Q.8.** Discuss the Chi-Square test of goodness of fit of a theoretical distribution to an observed frequency distribution. State the conditions for the validity of Chi-Square test. (15)
- Q.9.** The income distribution of officers of a certain company was found to follow normal distribution. The average income of an officer was Rs. 15,000. The standard deviation of the income of officers was Rs. 5,000. If there were 242 officers drawing salary above Rs. 18,500, how many officers were there in the company? (15)
(The area under standard normal curve between 0 and 0.7 is 0.2580)
- Q.10.** In a bolt factory, machines A,B,C manufacture respectively 25%, 35% and 40% of the total of their output. 5,4,2 percent are known to be defective bolts. A bolt is drawn at random from the product and is found to be defective. What are the probabilities that it was manufactured by (15)
- i) Machine A
 - ii) Machine B or C