

Reg. No..... Name.....

BBA DEGREE END SEMESTER EXAMINATION - JANUARY 2025

UGP (HONS.) SEMESTER – 1: (BBA INTEGRATED MARKETING & BBA BUSINESS ANALYTICS)

COURSE: 24UCCRBBA103: BUSINESS STATISTICS AND LOGIC

(For Regular 2024 Admission)

Time: 2 Hours

Max. Marks: 70

(Use of Scientific calculators and Statistical tables are permitted)

PART A

(Each question carries 2 marks. Maximum mark from this part is 10)

1. You are given two statements (S1 and S2) followed by two conclusions (C1 and C2). Assuming the two statements to be true, decide which of the conclusions follow logically.
 S1: All books are stories S2: All stories are pens
 C1: All books are pens C2: Some pens are books
2. If scale is called iron, iron is called blue, blue is called hen, hen is called water, water is called ink, ink is called bus, bus is called pen and pen is called pot, what is poured in pen?
3. A man starts from his house towards north and after walking 100 meters he turns right and walks 100 meters. Again turning to his right and walks 100 meters. In which direction and at what distance is he now from the starting point?
4. Pointing to a photograph a man said, “ he is the son of the only daughter of my father in law”. How is the person in the photograph related to the man?
5. Define mutually exclusive events.
6. If two dice are thrown at a time, what is the probability that sum of numbers is 7?
7. The mean and variance of a binomial distribution are 3 and 2 respectively. What is the probability of getting 2 successes?
8. Define standard normal distribution.

PART B

(Each question carries 5 marks. Maximum mark from this part is 20)

9. What are the desirable properties of a good measure of central tendency?
10. Find the median and mode of the following values: 16, 22,15, 37, 32, 25, 41, 25
11. Distinguish between correlation and regression.
12. Explain direct and inverse correlation with suitable examples.
13. Explain the term skewness. Also explain the different types of skewness.
14. The mean of a set of 40 observations is 52 and another set of 50 observations is 65. Calculate the mean of the combined set of 90 observations.

PART C

(Each question carries 20 marks. Maximum mark from this part is 40)

15. The prices of a particular commodity in five months at two regions A and B are as follows:

Region A	20	22	19	22	23
Region B	18	12	10	20	15

Compare the consistency of the prices in the two regions

16. The following data give the heights of fathers and sons. (i) Calculate Karl Pearson's coefficient of correlation (ii) also obtain the regression equation of Y on X and estimate the height of the son when the height of father is 70 inches.

Height of father (X)	65	66	67	67	68	69	71	73
Height of son (Y)	67	68	64	68	72	70	69	70

17. The median of a distribution given below is 28.5 find the values of x and y. Also calculate the mean and mode of the completed distribution.

class	0-10	10-20	20-30	30-40	40-50	50-60	Total
frequency	5	x	20	15	y	5	60

18. (a) Write down the properties of the normal distribution.
 (b) The scores in a test follow normal distribution with mean value 60 and standard deviation 10. Find the probability that score of a randomly selected student is
 (i) above 75 (ii) between 48 and 70 (iii) below 40
