

JK LakshmiPat University, Jaipur
Institute of Management
END TERM EXAMINATION (May 2025)

Programme: BBA–Sem II **Course Code and Title:** ID1115: Business Mathematics and Statistics
MM: 30 Marks **Time:** 2 Hours

Instructions: All questions are compulsory. You may use non-scientific calculators; however, borrowing/ lending of calculators shall not be allowed. All parts of a question must be attempted at one place and in order.

1. Differentiate between the following (any three): 6
(LO 2,3)
- Census vs Sampling
 - Discrete Variable and Continuous Variable
 - Central Tendency and Dispersion
 - Histogram and Column Chart

2. Marks obtained by 20 students in a class of Statistics are given as under. Calculate the common measures of central tendency and dispersion for the given data. Also comment upon the shape of the distribution. 6
(LO 1, 2)

24	24	15	19	22
18	16	20	22	24
14	12	16	14	20
16	18	20	22	24

3. Price per unit and Quantity Demanded for a particular item is as shown in the following table: 12
(LO 1,2,4)

Price (INR Per Unit)	10	12	14	16	18	20
Qty Demanded	55	48	45	38	35	32

- Draw a rough scatter plot and comment upon the relationship between price and demand.
 - Calculate Pearson's correlation coefficient (upto two decimals) and interpret it.
 - Find a regression equation to predict the quantity demanded from the price.
 - Estimate the quantity demanded if the price is INR 15 per unit.
4. Write explanatory notes on the following (any three): 6
(LO 2, 3)
- Normal Distribution
 - Standard Score (Z-Score)
 - Spearman's rank order correlation
 - Mutually Exclusive Events