

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

Programme: BBA – Sem IV
MM: 30 Marks

Course Code and Title: ID1114: Business Statistics
Time: 2 Hours

Instructions: Attempt any five questions. 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)
- Descriptive Statistics and Inferential Statistics
 - Central Tendency and Dispersion
 - Null Hypothesis and Alternate Hypothesis
 - Type-I and Type-II Errors
 - Standard Deviation and Standard Error

2. Calculate the mean, median, mode, range, variance and standard deviation for following dataset: 6
(LO 1)

10	20	30	40	50
60	70	80	90	100

3. Marks obtained by six students in their mid-term and end term exams were as under: 6
(LO 1,2)

MT Score	55	79	86	68	92	48
ET Score	63	75	89	76	89	52

- Draw a rough scatter plot and comment upon the relationship between mid-term and end term scores.
 - Calculate Pearson's correlation coefficient and interpret it.
4. Using the data in the above question, find a regression equation to predict end term score from mid-term score. Also, estimate the end term score of a student whose mid-term score was 65. 6
(LO 1)
5. An unfair coin turns Heads 7 out of 10 times. If it is tossed 5 times, then compute the following probabilities: 6
(LO 1,2)
- Getting exactly 2 heads
 - Getting at least 3 heads

...contd.

6. Time taken to complete a course on Statistics by students is assumed to be a normally distributed variable with a mean of 50 hours and a standard deviation of 10 hours. Find the probabilities (and sketch the rough normal curves) that a randomly selected student will complete the course in: (LO 1,2)
- i) Less than 50 hours
 - ii) Between 40 hours and 60 hours
 - iii) More than 40 hours

(Note: You may use empirical rules in place of statistical tables)

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