

BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(MID SEMESTER EXAMINATION)

CLASS: IMBA/ BBA
BRANCH: MANAGEMENT

SEMESTER : III
SESSION : MO/2025

SUBJECT: MN206 QUANTITATIVE TECHNIQUES IN MANAGEMENT

TIME: 02 HOURS

FULL MARKS: 25

INSTRUCTIONS:

1. The question paper contains 5 questions each of 5 marks and total 25 marks.
 2. Attempt all questions.
 3. The missing data, if any, may be assumed suitably.
 4. Tables/Data handbook/Graph paper etc., if applicable, will be supplied to the candidates
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		CO	BL
Q.1(a)	Mention properties of Normal Distribution.	[2] 1	1
Q.1(b)	If the probability of getting heads is $p=0.5$, what's the probability of getting exactly 3 heads in 5 tosses?	[3] 1	3
Q.2(a)	What is Conditional Probability?	[2] 1	1
Q.2(b)	A bag contains 5 red and 3 blue balls. Two balls are drawn without replacement. Find the probability of Second ball being Blue, if first is red.	[3] 1	3
Q.3(a)	Discuss the purpose of sampling.	[2] 2	2
Q.3(b)	Differentiate between random and non-random sampling.	[3] 2	2
Q.4(a)	Discuss different types of non-sampling error and analyze how they affect research outcome.	[2] 2	4
Q.4(b)	Evaluate the importance of CLT in making population inferences from sample data.	[3] 2	5
Q.5(a)	Discuss the significance of Statistical estimation.	[2] 3	2
Q.5(b)	Examine the role of interval estimation compared to point estimation in decision-making.	[3] 3	5

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