

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI  
(MID SEMESTER EXAMINATION MO/2024)**

**CLASS: BBA  
BRANCH: BBA**

**SEMESTER: III  
SESSION : MO/2024**

**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. **STANDARD NORMAL TABLE** will be supplied to the candidates

		CO	BL
Q.1(a)	Explain modern definition of Probability.	[2]	2 2
Q.1(b)	A ball contains 30 balls numbered from 1 to 30. One ball is drawn at random. Find the probability that the number of the drawn ball will be a multiple of (a) 3 and 7 (b) 5 and 7.	[3]	1 3
Q.2(a)	Define Normal Distribution. State the important characteristic of Normal Distribution.	[2]	2 2
Q.2(b)	In Normal Distribution 31% of the items are under 45 and 8% are over 64. Find mean and standard deviation of distribution.	[3]	3 4
Q.3(a)	What is meant by statistical laws?	[2]	2 2
Q.3(b)	Explain various Methods of making samples.	[3]	2 3
Q.4(a)	Why standard error arises?	[2]	3 2
Q.4(b)	Find confidence Interval for the population mean at 95% confidence level in the following case—Population Size—Not Available, Sample Size—36, Population SD—3, Sample SD—4, Sample Mean—100.	[3]	4 4
Q.5(a)	Differentiate Parameter and Statistic in Statistical measures like mean and standard deviation.	[2]	2 2
Q.5(b)	The probability that the Indian Cricket team wins a test match against the England Cricket team is $4/5$ . If Indian and England teams play 4 test matches, what is the probability that India will win at least one test match?	[3]	3 4

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