

## MCA I Year I Semester Subject Code: 24MCA1002 Probability and Statistics

Contact Hour	Unit No.	Topic Name	Teaching Methodology	Remarks
1	1	Definitions of Probability	Blackboard	
2	1	Addition Theorem	Blackboard	
3	1	Conditional Probability	Blackboard	
4–5	1	Multiplication Theorem	Blackboard	
6–7	1	Bayes' Theorem	Blackboard	
8	1	Discrete & Continuous Random Variables	Blackboard	
9	1	Probability Distribution Functions	Blackboard	
10	1	Properties of Distribution Functions	Blackboard	
11	1	Mathematical Expectations	Blackboard	
12	1	Probability Generating Functions	Blackboard	
13–14	2	Binomial & Poisson Distributions	Blackboard	
15	2	Negative Binomial Distribution	Blackboard	
16–17	2	Uniform & Normal Distributions	Blackboard	
18	2	Exponential Distribution	Blackboard	
19	3	Sample, Population, Statistic, Parameter	Blackboard	
20	3	Sampling Distribution & Standard Error	Blackboard	
21	3	Criteria of Good Estimator	Blackboard	
22	3	Interval Estimation	Blackboard	
23	3	Formulation of Null Hypothesis, Critical Region	Blackboard	
24	3	Level of Significance, Power of the Test	Blackboard	
25–26	3	Large Sample Tests: Means & Proportions	Blackboard	
27–28	4	Small Sample Tests: Equality of Means & Variances	Blackboard	
29–30	4	ANOVA – One-way and Two-way	Blackboard	
31	4	Correlation & Rank Correlation	Blackboard	
32	4	Simple Regression	Blackboard	
33–34	4	Multiple Regression	Blackboard	
35	4	Attributes & Coefficient of Association	Blackboard	
36	4	Test for Correlation & Regression Coefficients	Blackboard	
37–38	4	Chi-Square Test – Goodness of Fit & Independence of Attributes	Blackboard	
39	5	Introduction to Statistical Quality Control	Blackboard	
40–41	5	Control Charts: X-bar and R	Blackboard	
42	5	P and Attribute Charts	Blackboard	
43	5	Introduction to Queuing Theory	Blackboard	
44	5	Pure Birth and Death Process	Blackboard	

45–46	5	M/M/1 Model – Theory & Assumptions	Blackboard	
47–48	5	M/M/1 Model – Problem Solving	Blackboard	