

GENERAL DEPARTMENT
GOVERNMENT ENGINEERING COLLEGE, DAHOD
B.E. 3rd SEM (COMP., & ECE) - ODD SEMESTER: 2024-25
Subject: Probability & Statistics (3130006)

MID Semester Examination Syllabus

1	Basic Probability: Experiment, definition of probability, conditional probability, independent events, Bayes' rule, Bernoulli trials, Random variables, discrete random variable, probability mass function, continuous random variable, probability density function, cumulative distribution function, properties of cumulative distribution function, Two dimensional random variables and their distribution functions, Marginal probability function, Independent random variables	CO1
2	Basic Statistics: Measure of central tendency: Moments, Expectation, dispersion, skewness, kurtosis, expected value of two dimensional random variable, Linear Correlation, correlation coefficient, rank correlation coefficient, Regression, Bounds on probability, Chebyshev's Inequality	CO3
3	Curve fitting by the numerical method: Curve fitting by of method of least squares, fitting of straight lines, second degree parabola and more general curves.	CO5
<p>Reference Books:</p> <p>(1) P. G. Hoel, S. C. Port and C. J. Stone, Introduction to Probability Theory, Universal Book Stall. (2) S. Ross, A First Course in Probability, 6th Ed., Pearson Education India. (3) W. Feller, An Introduction to Probability Theory and its Applications, Vol. 1, Wiley. (4) D. C. Montgomery and G. C. Runger, Applied Statistics and Probability for Engineers, Wiley. (5) J. L. Devore, Probability and Statistics for Engineering and the Sciences, Cengage Learning. (6) S.C. Gupta, V.K. Kapoor: Fundamentals of Basic Statistics, Sultan Chand & Sons, New Delhi.</p>		

CO-1	Understand the terminologies of basic probability, two types of random variables and their probability functions.
CO-3	Understand the central tendency, correlation and correlation coefficient and also regression.
CO-5	Understand the fitting of various curves by method of least square.

CO	CO1	CO3	CO5	Total
Weightage	10	10	10	30

Bloom's Taxonomy level	R	U	A	N	E	C
As per GTU	10	15	3 5	0	0	0
Actual	-	-	-	0	0	0