

GENERAL DEPARTMENT

GOVERNMENT ENGINEERING COLLEGE, DAHOD

B.E. 3rd SEM (COMP., ECE and Civil Engineering) - ODD SEMESTER: 2026-27

Subject: Probability & Statistics (BE03000251)

SYLLABUS for

MID SEMESTER EXAMINATION-2026

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.	10	CO1
2	Basic Statistics: Measure of central tendency: Moments, Expectation, dispersion, skewness, kurtosis, Linear Correlation, correlation coefficient, rank correlation coefficient, Regression.	10	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	10	CO5

Reference Books:

- (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.

CO-1	Define the basic probability terminology and also can describe random Variables and their probability functions.
CO-3	Compute various statistical measures and further, calculate correlation and Regression coefficient.
CO-5	Apply the least square method for curve fitting.

CO	CO1	CO3	CO5	Total
Weightage	10	10	10	30

Bloom's Taxonomy level	R	U	A	N	E	C
As per GTU	7	28	35	0	0	0
Actual	-	-	-	0	0	0