



Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore
Department of Mathematics (GE for UG Students)

SUBJECT CODE	Category	SUBJECT NAME	TEACHING & EVALUATION SCHEME								
			THEORY			PRACTICAL		Th	T	P	CREDITS
			END SEM	MST	Q/A	END SEM	Q/A				
GUMA101	GE	Probability Theory	60	20	20	0	0	3	0	0	3

Course Objective

To introduce the students with the Fundamentals of the Probability Theory

● **Course Outcomes**

After the successful completion of this course students will be able to:

- 1. understand the probabilistic approach and applications of probability*
- 2. analyse and differentiate the events*
- 3. evaluate the probability of simple and complex events*
- 4. apply the Bayes' theorem to find the conditional probability.*

Course Content:

UNIT – I

Introduction to probability, basic terminology: random experiment, outcome, trial and event, exhaustive events, favorable events, mutually exclusive events, equally likely events, independent events.

● **UNIT – II**


Definition of probability: Mathematical (or Classical or 'A Priori') probability, statistical probability, Axiomatic probability, application of the probability.

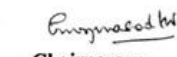
UNIT – III


Addition theorem on probability and related examples.

UNIT – IV

Conditional probability, multiplication theorem for independent and dependent events, related examples.


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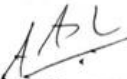
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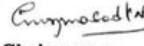
UNIT – V


Bayes' theorem, related examples.

Reference Books:

1. Fundamentals of mathematical statistics, S.C. Gupta and V.K.Kapoor, sultan chand & sons
2. Fundamental of statistics, Goon, Gupta and Dasgupta.
3. Statistical Methods: An Introductory Text, J. Medhi.


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