



# 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				
MAUGGE05	GE	<b>Testing Hypothesis</b>	60	20	20	0	0	3	0	0	3

### Course Objective

To introduce the students with the Fundamentals of the Hypothesis Theory.

### Course Outcomes

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

1. apply the testing of hypothesis in real life situations
2. analyse the hypothesis, errors in decision and confidence level
3. compare two populations
4. identify the independence of attributes.

### Course Content:

#### UNIT – I

Introduction: null and alternative hypothesis, critical region and acceptance region, Type I and Type II error, level of significance, p-value, power of the test, confidence interval.

#### UNIT – II

Small sample test: t-test for single mean, t-test for difference of means, paired t-test, critical value table of t-test, confidence limits.

#### UNIT – III

F-test for equality of two population variances, critical value table of F-test, confidence limits.

#### UNIT – IV

Exact sample test: Chi-square test for 'Goodness of fit'.

#### UNIT – V

Test of independence of attributes.

### References:

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

#### Chairperson

Board of Studies  
Shri Vaishnav Vidyapeeth  
Vishwavidyalaya, Indore

#### Chairperson

Faculty of Studies  
Shri Vaishnav Vidyapeeth  
Vishwavidyalaya, Indore

#### Controller of Examination

Shri Vaishnav Vidyapeeth  
Vishwavidyalaya, Indore

#### Joint Registrar

Shri Vaishnav Vidyapeeth  
Vishwavidyalaya, Indore