Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore
Name of the Program: M. Sc. in Mathematics

| SUBJECT CODE | Category | SUBJECT Name | TEACHING \& EVALUATION SCHEME |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | THEORY |  |  | PRACTICAL |  | Th | T | P |  |
|  |  |  | $\begin{array}{\|l\|l\|} \hline \text { END } \\ \text { SEM } \end{array}$ | MST | Q/A | $\begin{aligned} & \hline \text { END } \\ & \text { SEM } \end{aligned}$ | Q/A |  |  |  |  |
| MAUGGE02 | GE | Subsidiary Mathematics | 60 | 20 | 20 | - | - | 3 | 0 | - | 3 |

## Course Objective

This course aims at equipping student with a broad-based knowledge of mathematics with emphasis on business applications.

## Course Outcomes

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

1. understand and apply the basics of Mathematics.
2. understand the real-life applications of Mathematics.

## Course Content:

UNIT - I
RATIO, PROPORTION AND PERCENTAGE
Ratio- Definition, Continued Ratio, Inverse Ratio, Proportion, Continued Proportion, Direct Proportion, Inverse Proportion, Variation, Inverse Variation, Joint Variation, Percentage - Meaning and Computations of Percentages.

UNIT - II
PROFIT AND LOSS, Terms and Formulae, Trade discount, Cash discount, Problems involving cost price, Selling Price, Trade discount and Cash Discount. Introduction to Commission and brokerage, Problems on Commission and brokerage, concepts and treatment of depreciation.

| Chairperson | Chairperson | Controller of Examination | Joint Registrar <br> Board of Studies <br> Faculty of Studies |
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| Shri Vaishnav Vidyapeeth | Shaishnav Vidyapeeth <br> Shri Vaishnav Vidyapeeth <br> Vis hwavidyalaya, Indore | Vishwaidyalaya, Indore | Shri Vaishnav Vidyapeeth <br> Vishwavidyalaya, Indore |

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UNIT - III
INTEREST
Simple Interest, Compound interest (reducing balance \& Flat Interest rate of interest), Equated Monthly Instalments (EMI), Principles of Hire-Purchase.

UNIT - IV
SHARES AND DIVIDENDS
Concept \& Examples of Shares, Stock exchange, Face Value, Market Value, Dividend, Equity Shares, Preferential Shares, Bonus Shares, delete examples.

UNIT - V
MATRICES AND DETERMINANTS
Multivariable data, Definition of a Matrix, Types of Matrices, Algebra of Matrices, Determinants, Adjoint of a Matrix, Inverse of a Matrix via adjoint Matrix.

## Reference Books:

1. Business Mathematics by Dr. Amarnath Dikshit \& Dr. J. K. Jain.
2. Business Mathematics by V. K. Kapoor - Sultan Chand \& Sons, Delhi.
3. Business Mathematics by Bari - New Literature Publishing Company, Mumbai.

Joint Registrar
Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore

