**INDIAN KNOWLEDGE SYSTEMS**

**VEDIC MATHEMATICS AND ITS APPLICATIONS**

**Department of Mathematics**

**Christ College (Autonomous) Irinjalakuda**

**Module-I Basic Level (5 Hours)**

Chapter – 1 : Basic Principles and Concepts based on Vedic Mathematics

Chapter – 2 : Criss-Cross Method of Multiplication

Chapter – 3 : Squaring

Chapter – 4 : Cubing

Chapter – 5 : Square Root and Cube Root

**Module-II Intermediate Level (10 Hours)**

Chapter – 6 : Basic Method for Multiplication

Chapter – 7 : Basic Method for Squaring

Chapter – 8 : Digital Sum Methods

Chapter – 9 : Magic Squares

Chapter – 10 : Dates and Calendars

Chapter – 11 : General Equations

Chapter – 12 : Simultaneous Linear Equations

**Module-III Advanced Level (10 Hours)**

Chapter – 13 : Square Root of Imperfect Squares

Chapter – 14 : Cubing

Chapter – 15 : Basic Method of Division-1

Chapter – 16 : Basic Method of Division -2

Chapter – 17 : Sangamagrama Madhava Concept of π and Other Allied Numerical Concepts

**Module-IV Applications**

Chapter – 18 : Exponential powers and various numerical operations based on Russian Mathematics, Japanese Mathematics and Mental Mathematics.

*References*  :

1. Vedic Mathematics , *Jagadguru Swami Sri Bharati Krishna Tirthaji Maharaja*
2. Vedic Mathematics for schools, *J. T. Glover* .