

Sh. L.N. Hindu College, Rohtak

Affiliated to M.D.University, Rohtak

A Post Graduate Co-Educational College, Bhiwani Road, Rohtak

Accredited by NAAC with 'B' (2.74) Grade

Certificate Course in Vedic Mathematics

Beneficiaries: All Students

Duration: 30 Hours

Course Overview:

Vedic Mathematics is the name given to the ancient system of Indian Mathematics which was rediscovered from the Vedas between 1911 and 1918 by Sri Bharati Krishna Tirthaji. According to his research, all of mathematics is based on sixteen Sutras or word-formulae. Vedic Mathematics will enable you to calculate much faster as compared to the conventional system. You will be able to do seemingly difficult calculations like 998×997 in split of seconds which will make a remarkable difference to your confidence and self esteem. Your calculation skills will improve which will make you able to perform in better way.

This course is designed to do calculations in Arithmetic, Algebra in simplified ways for speeding up calculations. These concepts will help you in your studies for the university examinations and also for the entrance examinations you will be facing in your life. This course will eradicate fear of Math completely. So if you have Math-Phobia, Vedic Mathematics is a fun-filled way to do Math. It arises interest, sharpens your mind, increases mental ability and increases your speed and accuracy. You will be learning how to speed up Multiplication, Division, Addition, Subtraction, finding squares in less than 5 seconds, Cubes, Cube Roots and Square Roots in 3 seconds, Sharpen your skills of Algebraic Equations and do it mentally, learn Divisibility rules for every number in the number system, Speed up concepts of Geometry, Calendars and much more.

Module 1 is introductory part of the course which deals with explanation of 16 sutras. Basic calculation like addition, subtraction is covered in this module. **Module 2** focused on calculation of Square and Cube Roots. **Module 3** explains simple, quadratic and simultaneous equations whereas **Module 4** aimed at imparting the students to understand various theorems like Pythagoras and Apollonius Theorem. Advanced concepts like Integration using partial functions and analytical geometry are also included in this module.

Learning Outcomes:

- At the end of the course the students will be able to do calculations like multiplication, division, addition, subtraction, squares in less than 5 seconds, Cubes and Cube Roots in 3 seconds.
- This course will be helpful in sharpening the skills of Algebraic Equations and does it mentally, learning divisibility rules for every number in the number system, speed up concepts of Geometry, finding out divisibility rules for every number in the number system, Calendars and much more.
- Student's paradigm about mathematics will be changed and they will be able to enjoy it more than ever did.
- By the end of each topic students will have a better understanding of the mental math method being explained and they will be able to calculate 10-15 times faster than before.
- This course will also be helpful to get rid from Math phobia and learner will become a human calculator itself after the completion of this course. This course will sharpen the mind of learner and increases his mental agility and intelligence

SYLLABUS

Theory Marks: 60

Internal Marks: 40

Total Marks: 100

Time: 3 Hours

Note: The Examiner will be required to set nine questions in all. Question No. 1 is compulsory containing 10 short questions carrying equal marks (2 marks each) covering the entire syllabus. In addition examiner will set two questions from each section/unit from the given four units of syllabus. The candidate will be required to attempt five questions in all selecting at least one question from each unit.

Unit-1: Parichaya & Buniyadi Ganna (Introduction & Basic Calculations)

- History, Evolution & Introduction to Vedic Mathematics
- Development of Vedic Mathematics
- 16 Sutras of Vedic Mathematics
- Addition
- Subtraction
- Multiplication
- Division

Unit-2: Ankaganita (Arithmetic)

- Divisibility
- Square & Square Roots
- Cube & Cube Roots
- Decimals

Unit-3: Beejganita (Algebra)

- Factorization
- HCF
- Simple Equations
- Quadratic Equations
- Cubic Equations
- Bi-Quadratic Equations
- Simultaneous Equations

Unit-4: Ganna (Calculus)

- Pythagoras Theorem
- Apollonius Theorem
- Factorization and Differential Calculus
- Partial Functions
- Integration Using Partial Functions
- Analytical Conic Geometry

Suggested Readings:

- Higher Applications of Vedic Mathematics by Dr. Narinder Puri:Prakash Book Depot.
- Vedic Mathematics made easy by Pandit Ramnandan Shashtri: Arihant Publications.
- Vedic Ganit Sutra by Dr. Alok Kumar : Upkar Publications.
- Vedic Ganit: Swami Bharti krishnateerath Ji Maharaj” by Dr. Vasudev Sharan Aggarwal: Motilal Banarsidas Publishers.

Note: Latest and additional good books may be suggested and added from time to time.