

CERTIFICATE COURSE DETAILS

NAME OF THE COURSE

VEDIC MATHEMATICS AND ITS APPLICATIONS

COURSE DETAILS

Total hours: 30

COURSE COORDINATOR

Dr. Seena Varghese

ABOUT COLLEGE

Christ College (Autonomous) Irinjalakuda, established in the year 1956 by CMI fathers has always been place where young generations are moulded towards a bright future. College has excellent infrastructure, with state-of-the-art laboratories, seminar rooms and lecture halls. The campus is Wi-Fi enabled. Presently College is house for 4500+ students. 200 teaching staff and 45 supporting staff. The strength of the College lies in its hardworking and tech savvy teachers who are eager to involve in all matters of students. The lush green campus with gardens and open gym is moving towards the next phase on education both offline and online.

AIM OF THE COURSE

To help students in simplifying mathematical calculations, improving speed, accuracy, memory and concentration thereby ensuring better performance in competitive examinations.

COURSE OUTCOMES

- Develop familiarity with basic Vedic Mathematics concepts.
- Learn various methods for performing mathematical operations using Vedic Mathematics.
- Gain knowledge about the Samgamagrama Madhava concept of and other allied numerical concepts.
- Explore applications of Vedic Mathematics.

SYLLABUS

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 πand Other Allied Numerical Concepts

Module-IV Applications (5 Hours)

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

References

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

Vedic Mathematics- Test Paper

NB. Using the methods in Vedic Mathematics do the problems.

1. Find the product of the following numbers

63x67

111x119

82×88

2. Find the product of 23249x99999 by the....

3. Multiply the following using Base method.

990x994

96x104

4. Find the cube root of 474552, 941192 without the aid of writing calculations.

5. What is the day of 30/4/2024. Explain the procedure adapted

6. Find the square by Duplex method (15/8)2

7. Find the square root of 5184
25281
2047761
8. Find the cube root of

2621442

287496

9. Find the Mean, Median, Mode and Range of 7,3,4,1,7,6

10. Compulsory Question

Write a paragraph of not more than 5 sentences regarding/ mentioning your mental approach to vedic Maths discussing its pros and cones.

Vedic Mathematics and its Applications

Syllabus :

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
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- 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)

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Vedic Mathematics and its Applications - CPCC65

Certificate Course

Teacher Coordinator Report 2024

Number of students	26
Date of examination	09-07-2024
Total students who passed exam	15
Total course duration	30 hrs

Feedback analysis:

- Students are very interested in learning mathematics using Vedic Mathematics
- It helped the students in improving their problem solving ability
- Students enjoyed the classes.

Course Coordinator: Dr Seena Varghese

(Certificate Course)

Vedic Mathematics and its Applications

Summary Report 2023-24

The course started on December 2023. There were 26 students enrolled and 15 completed the course. The course was of 30 hrs duration.

Course Outcome:

After completing this course, students will be able to:

- CO1: Develop familiarity with basic Vedic Mathematics concepts.
- CO2: Learn various methods for performing mathematical operations using Vedic Mathematics.
- CO3: Gain knowledge about the Samgamagrama Madhava concept of π and other allied numerical concepts.
- CO4: Explore applications of Vedic Mathematics.

Evaluation

Participants will be assessed on test after the completion of course.

Target Audience:

UG and PG Students

Course Coordinator: Dr. Seena Varghese



POSTGRADUATE AND RESEARCH DEPARTMENT OF MATHEMATICS



This is to certify that

Ms./Mr. <u>ANTO PAUL</u>, <u>B.Sc. CHEMISTRY</u> has successfully completed the certificate course on Vedic Mathematics and Its Applications conducted by Postgraduate and Research Department of Mathematics, Christ College (Autonomous), Irinjalakuda during the academic year 2023-24.

Dr. SEENA V Head of the Department

Dr. SEENA VARGHESE **Course Coordinator**





POSTGRADUATE AND RESEARCH DEPARTMENT OF MATHEMATICS

Certificate

This is to certify that

Ms./Mr. <u>ANUROSE P.S., B.Sc. MATHEMATICS</u> has successfully completed the certificate course on Vedic Mathematics and Its Applications conducted by Postgraduate and Research Department of Mathematics, Christ College (Autonomous), Irinjalakuda during the academic year 2023-24.



Dr. SEENA VARGHESE Course Coordinator





POSTGRADUATE AND RESEARCH DEPARTMENT OF MATHEMATICS

Certificate

This is to certify that

Ms./Mr. <u>ATHULLYA (MRISH</u>, <u>B.A. ECONOMICS</u> has successfully completed the certificate course on Vedic Mathematics and Its Applications conducted by Postgraduate and Research Department of Mathematics, Christ College (Autonomous), Irinjalakuda during the academic year 2023-24.

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Dr. SEENA V Head of the Department

Dr. SEENA VARGHESE Course Coordinator





POSTGRADUATE AND RESEARCH DEPARTMENT OF MATHEMATICS



This is to certify that

Ms./Mr. <u>GIFTY ROSE GEORGE</u>, B.Sc MATHEMATICS has successfully completed the certificate course on Vedic Mathematics and Its Applications conducted by Postgraduate and Research Department of Mathematics, Christ College (Autonomous), Irinjalakuda during the academic year 2023-24.



Dr. SEENA V Head of the Department

Dr. SEENA VARGHESE Dr. JOLLY ANDREWS CMI Course Coordinator Principal





> **POSTGRADUATE AND RESEARCH DEPARTMENT OF MATHEMATICS**



This is to certify that

Ms./Mr. MERITTA SHIBU, B.Com FINANCE has successfully completed the certificate course on Vedic Mathematics and Its Applications conducted by Postgraduate and Research Department of Mathematics,

Christ College (Autonomous), Irinjalakuda during the academic year 2023-24. Dr. SEENA V Head of the Department

Dr. SEENA VARGHESE Course Coordinator





POSTGRADUATE AND RESEARCH DEPARTMENT OF MATHEMATICS

Certificate

This is to certify that Ms./Mr. <u>T. B. YASMIN</u>, <u>B.Sc. PHYSICS</u> has successfully completed the certificate course on Vedic Mathematics and Its Applications conducted by Postgraduate and Research Department of Mathematics, Christ College (Autonomous), Irinjalakuda during the academic year 2023-24.



Dr. SEENA VARGHESE Course Coordinator



