KONGUNADU ARTS AND SCIENCE COLLEGE
(AUTONOMOUS)

COIMBATORE – 641 029

CURRICULUM AND SCHEME OF EXAMINATIONS (CBCS)
(2026 - 2027 and onwards)

for the programme

DIPLOMA IN VEDIC MATHEMATICS

Offered by

DEPARTMENT OF MATHEMATICS

PROGRAMME OUTCOME (PO):

PO 1: Develop a clear understanding of the principles and applications of Vedic Mathematics.

PO 2: Improve numerical and arithmetic skills through simple and rapid calculation techniques.

PO 3: Enable students to perform mathematical calculations with speed, accuracy, and confidence.

PO 4: Enhance problem-solving, logical reasoning, concentration, and visualization abilities.

PO 5: Prepare students for competitive examinations by strengthening numerical aptitude skills.

PO 6: Encourage the practical application of Vedic Mathematics in everyday calculations and modern technological fields.

PROGRAM SPECIFIC OUTCOMES (PSO):

PSO 1: Demonstrate proficiency in performing arithmetic calculations swiftly and accurately.

PSO 2: Possess the ability to apply Vedic mathematics techniques to generate tables, solve Complex calculations, and calculate square roots and cube roots with confidence.

PSO 3: Develop strong numerical aptitude and problem-solving skills, enabling them to tackle Competitive examinations effectively.

PSO 4: Harness the power of Vedic mathematics to enhance concentration, visualization, and Logical reasoning abilities.

PSO 5: Build strong mathematical skills for innovation, technology, and problem-solving.

DIPLOMA IN VEDIC MATHEMATICS

Curriculum and Scheme of Examinations under CBCS for the candidates
Admitted from 2026 - 2027 and onwards

Semester	Subject Code	Title of the Paper	Instructional Hrs/Cycle	Exam Marks			Duration of Exam (Hours)	Credits
				CIA	ESE	Total		
I	26DVM101	Core Paper 1 Vedic Arithmetic	2	25	75	100	2	3
	26DVM102	Core Paper 2 Vedic Algebra	2	25	75	100	2	3
II	26DVM203	Core Paper 3 Vedic Geometry	2	25	75	100	2	3
	26DVM2Z1	Project – Viva voce	2	20	80	100	-	3
		Total	**8**	**-**	**-**	**400**	**-**	**12**

CBCS – Choice Based Credit System
CIA – Continuous Internal Assessment
ESE – End of Semester Examinations

*- Duration of Examination is scheduled for 2 Hours to enhance speedy calculation

Components of Continuous Internal Assessment

Components		Marks	Total
Theory			
CIA I	75	(75+75) converted to 15	25
CIA II	75		
Attendance		5	
Others*****		5	
Project			
Review		15	20
Attendance		5	

* Class Participation, Case Studies Presentation, Field Work, Field Survey, Group Discussion, Term Paper, Workshop/Conference Participation. Presentation of Papers in Conferences, Quiz, Report/Content writing. Etc.

****** Two Assignments to be given. (Each 5 marks).

BLOOM'S TAXONOMY BASED ASSESSMENT PATTERN

(K1-Remembering; **K2**-Understanding; **K3**-Applying; **K4**-Analyzing; **K5**-Evaluating)

Theory Examination

i) CIA I & II and ESE: 75 Marks

Knowledge Level	Section	Marks	Description	Total
K1 – K2 Q1 to 10	A (Answer all)	10 x 1 = 10	MCQ-10	75
K2 – K5 Q11 to 15	B Either or Pattern	5 x 5= 25	Short Answers	
K2 – K5 Q16 to 20	C Either or Pattern	5 x 8 = 40	Descriptive / Detailed	

ESE Project Viva Voce:

Knowledge Level	Section	Marks	Total
K3	Project Report	60	80
K4	Viva voce	20	
K5			

26DVM101

Programme Code: 02		Diploma in Vedic Mathematics		
Title of the Paper		**Core Paper 1 Vedic Arithmetic**		
Batch **2026 - 2027**	**Hours/Cycle** **2**	**Total Hours** **30**	**Credits** **3**	**Employability/ Skill Development**

Course Objectives

1. To get the knowledge of ancient arithmetic calculations.
2. To Understand the concepts of Nikhilam sutras
3. To Solve the square root problems using Ekadhikensutram

Course Outcomes (CO)

K1 to K5	CO1	Remembering the basic 16 sutras and 13 sub sutras
	CO2	Applying the Nikhilam sutras for arithmetic calculations
	CO3	Analyzing certain sutras in vedic arithmetic
	CO4	Evaluating the concept of vedic arithmetic with modern mathematics
	CO5	Exploring the Vedic sutras in arithmetic.

Syllabus

UNIT – I **(6 Hours)**

History of Vedic Mathematics – salient features of Vedic Mathematics – formulae – 16 sutras, 13 sub sutras – terms and operations. High speed addition by using the concept of computing the whole and from left to right – super fast subtraction by Nikhilam sutras from basis 100,1000,10,000.

UNIT – II **(6 Hours)**

Multiplication: Ekadhikenpurven sutram – Eknunenpurven sutram - vinculum sutram –Nikhilam Navtashchraman Dashtaha sutram

UNIT – III **(6 Hours)**

Meaning of Ekadhiken sutram and its applications in finding squaring of numbers ending in 5 – squares of Anurupeyana sutram – squares by Yavdunamthavadunikrityavargamchayojyet sutram – squaring by Dwandvayoga sutram – squaring numbers nearest 50 – square roots of perfect square – general method of square roots – cubes by Anurupeyana sutram.

UNIT – IV **(6 Hours)**

Decimals and fractions – division by Nikhilam sutram – division of 1/19, 1/29 by ekadhikenpurven sutram - division by paravartya sutram – division by anurupeyana sutram – division of polynomials – factors of general second degree equation by lopsthapanabhayam sutram.

UNIT – V **(6 Hours)**

Contribution of Indian Mathematicians in light of Arithmetic– Aryabhatta – Brahmagupta – Mahaveeracharya – Bharti Krishna Tirtha.

RECOMMENDED BOOKS FOR STUDY

1. Vedic Mathematics, JagadguruSankaracarya Swami Sri Bharati KrsnaTirthaji Maharaja, Motilal Banarsidass Publishers, New Delhi.

2. Vedic Ganita: Vihangama Drishti-1,ShikshaSanskritiUtthanNyas, New Delhi.

3. Bharatiya Mathematicians, Sharda Sanskrit Sansthan, Varanasi.

4. Leelavati, Chokhambha Vidya Bhavan, Varanasi.

e-Resources

1.https://www.youtube.com/watch?v=zAt365xAFc&list=PL37kVxuLUBb7WJUQZFLOFN1n70 bfRCauP

2.https://www.youtube.com/watch?v=tNL9_JG6XJM&list=PL37kVxuLUBb7WJUQZFLOFN1n70bfRCauP&index=24

3.https://www.youtube.com/watch?v=HgGIPVRVnnk&list=PL37kVxuLUBb7WJUQZFLOFN1n70bfRCauP&index=51

4.https://www.youtube.com/watch?v=2XehegXxueo&list=PL37kVxuLUBb7WJUQZFLOFN1n70bfRCauP&index=39

5. https://www.youtube.com/watch?v=OxYI3Z_mlek

Mapping

PSO / CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S	S	H	M	M
CO2	H	M	S	S	H
CO3	M	H	M	S	S
CO4	S	S	H	M	H
CO5	S	H	M	S	H

S-Strong; H-High; M-Medium; L-Low

Content prepared by (Based on Inputs) Signature of the Course in-charge	 Signature of the HOD

26DVM102

Programme Code: 02		**Diploma in Vedic Mathematics**		
Title of the Paper		**Core Paper 2 Vedic Algebra**		
Batch **2026 - 2027**	**Hours/Cycle** **2**	**Total Hours** **30**	**Credits** **3**	**Employability/ Skill Development**

Course Objectives

1. To get the knowledge of ancient algebraic calculations.
2. To Understand the concepts of Urdhvatiragbhyam sutram
3. To Solve the factorization problems using Urdhvatiragbhyam sutram

Course Outcomes (CO)

K1 to K5	CO1	Remembering the basic 16 sutras and 13 sub sutras
	CO2	Applying Urdhvatiragbhyamsutram for algebraic calculations
	CO3	Analyzing certain sutras in vedic algebra
	CO4	Evaluating the concept of vedic algebra with modern mathematics
	CO5	Exploring the Vedic sutras in Algebra.

Syllabus

UNIT – I **(6 Hours)**

Multiplication: Quadratic expressions of single variable – Urdhvatiragbhyam sutram – combined operations

UNIT – II **(6 Hours)**

Division and factorization : Linear expression of single variable - Quadratic expressions of single variable.

UNIT – III **(6 Hours)**

LCM AND HCF

UNIT – IV **(6 Hours)**

Solution of Linear Simultaneous Equations

UNIT – V **(6 Hours)**

Contribution of Indian Mathematicians in light of Algebra – Varahmihir – Bhaskaracharya – Neelkanth Somayya – Bharti Krishna Tirtha.

RECOMMENDED BOOKS FOR STUDY

1. Vedic Mathematics, JagadguruSankaracarya Swami Sri Bharati KrsnaTirthaji Maharaja, Motilal Banarsidass Publishers, New Delhi.

2. Vedic Ganita: Vihangama Drishti-1,ShikshaSanskritiUtthanNyas, New Delhi.

3. Bharatiya Mathematicians, Sharda Sanskrit Sansthan, Varanasi.

4. Beejganitam, Chokhambha Vidya Bhavan, Varanasi.

e-Resources

1. https://sites.iitgn.ac.in/homi/assets/files/GEOMETRY%20IN%20INDIAN%20MATHEMATICS-%20.pdf

2. https://www.youtube.com/watch?v=BwGOKWh56Io

3. https://www.youtube.com/watch?v=6_5nEQdqV04

4. https://www.youtube.com/watch?v=1x00EAtL4gM

5. https://www.youtube.com/watch?v=zxWLZ9BgR0Y

6. https://www.youtube.com/watch?v=OxYI3Z_mlek

Mapping

PSO / CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S	S	H	M	M
CO2	H	M	S	S	H
CO3	M	H	M	S	S
CO4	S	S	H	M	H
CO5	S	M	S	M	H

S-Strong; H-High; M-Medium; L-Low

Content prepared by (Based on Inputs) Signature of the Course in-charge	 Signature of the HOD

26DVM203

Programme Code: 02		Diploma in Vedic Mathematics		
Title of the Paper		**Core Paper 3 Vedic Geometry**		
Batch **2026 - 2027**	**Hours/Cycle** **2**	**Total Hours** **30**	**Credits** **3**	**Employability/ Skill Development**

Course Objectives

1. To get the knowledge of Bhaudhayana Number
2. To Understand the concepts of sutras in geometry
3. To Solve the complex square root problems using sutras in geometry

Course Outcomes (CO)

K1 to K5	CO1	Remembering the basic concept of Bhaudhayana Number
	CO2	Applying the ancient sutras for solving geometric problems
	CO3	Analyzing certain sutras in vedic geometry
	CO4	Evaluating the concept of vedic geometry with modern mathematics
	CO5	Exploring the Vedic sutras in Geometry.

Syllabus

UNIT – I **(6 Hours)**

Concept of Bhaudhayana Number (BN) – BN of an angle – Multiplication of a constant in a BN – BN of complementary angles – BN of sum and difference (a + or – b) of an angle – BN of half angle.

UNIT – II **(6 Hours)**

Trigonometry: Definitions of trigonometric ratios – trigonometric identities.

UNIT – III **(6 Hours)**

Co-ordinate Geometry: Different forms of straight lines.

UNIT – IV **(6 Hours)**

Complex Numbers: Multiplication, Division and Square root.

UNIT – V **(6 Hours)**

Contribution of Indian Mathematicians in light of Geometry – Bhaskaracharya – Madhavan – Parmeshvaran - Baudhayana.

RECOMMENDED BOOKS FOR STUDY

1. Vedic Mathematics, JagadguruSankaracarya Swami Sri Bharati KrsnaTirthaji Maharaja, Motilal Banarsidass Publishers, New Delhi.
2. Vedic Ganita: Vihangama Drishti-1,ShikshaSanskritiUtthanNyas, New Delhi.
3. Bharatiya Mathematicians, Sharda Sanskrit Sansthan, Varanasi.
4. Beejganitam, Chokhambha Vidya Bhavan, Varanasi.

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2. https://www.youtube.com/watch?v=BwGOKWh56Io
3. https://www.youtube.com/watch?v=6_5nEQdqV04
4. https://www.youtube.com/watch?v=1x00EAtL4gM
5. https://www.youtube.com/watch?v=zxWLZ9BgR0Y
6. https://www.youtube.com/watch?v=OxYI3Z_mlek

Mapping

PSO / CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S	S	H	M	M
CO2	H	M	S	S	H
CO3	M	H	M	S	S
CO4	S	S	H	M	H
CO5	S	H	H	S	M

S-Strong; H-High; M-Medium; L-Low

Content prepared by (Based on Inputs) Signature of the Course in-charge	 Signature of the HOD

26DVM2Z1

Programme Code: 02		Diploma in Vedic Mathematics		
Title of the Paper		Project and Viva voce		
Batch 2026 - 2027	Hours/Cycle 2	Total Hours 30	Credits 3	Employability/ Skill Development

Course Objectives

1. To study the basic sutras related to the practical problems.
2. To know about the ancient Bharathiya Mathematicians.
3. To share our knowledge to the young buds in the modern society

Course Outcomes

K3 - K5	CO1	Applying the basic sutras in modern Problems
	CO2	Analyzing the sub sutras with basic 13 sutras
	CO3	Deducting the unsolved problems in modern techniques
	CO4	Adopting to the ancient solving technique
	CO5	Discussing an exact result in minimum time

Students can opt anyone of the following to complete the course

1. Contributions of Indian Mathematicians

2. Ancient Bharatiya Mathematical Work (Leelavati, Sulba Sutra, GanitaKaumudi etc., or any other Ancient Indian Text)

3. The manuscript may be a review article based upon personal observations or research article giving some new idea.

4. Candidates may deliver a lecture in any educational institute (School or College) on VedicMathematics and feedback from head of the institute may be submitted. Feedback must be onletter head of the institute duly signed and stamped.

Distribution of marks for option 1-3

Distribution of Marks in ESE

Dissertation	:	60
Viva voce	:	20
Total		**80**

Internal

Project Review	:	15
Attendance	:	5
Total		**20**

To be awarded jointly by the internal and external examiners

Distribution of marks for option 4

For producing the feedback letter from the head of the institution duly signed and stamped will be awarded 100 marks by the Internal Examiner.

Mapping

PSO / CO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S	H	M	S	H
CO2	H	M	H	M	S
CO3	S	H	M	H	M
CO4	S	S	H	H	M
CO5	M	S	S	H	S

S - Strong; **H**-High; **M**-Medium; **L**-Low

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