

# VALUE ADDED COURSE

**Swarnnim Institute of Technology**

Course Code: VACVMI

Year: 2022-23

Semester:- Odd

## Subject: VEDIC MATHEMATICS - I

<b>Program:</b>	Bachelor of Engineering	<b>Branch:</b>	All
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**Hours:- 30 hrs.**

### Objective:-

- Foster love for maths and remove its fear through Vedic Mathematics
- Enhance computation skills in students through Vedic Mathematics
- Develop logical and analytical thinking
- Promote joyful learning of mathematics
- Discuss the rich heritage of mathematical temper of Ancient India

### Detail Syllabus

Sr.	Content	Total Hrs
1	<b>Vedic Maths- High Speed Addition and Subtraction:</b> Vedic Maths: History of Vedic Maths and its Features, Vedic Maths formulae: Sutras and Upsutras, Addition in Vedic Maths: Without carrying, Dot Method, Subtraction in Vedic Maths: Nikhilam Navatashcaramam Dashatah (All from 9 last from 10), Fraction -Addition and Subtraction	05
2	<b>Vedic Maths- Miracle Multiplication and Excellent Division</b> Multiplication in Vedic Maths: Base Method (any two numbers upto three digits), Multiplication by Urdhva Tiryak Sutra, Miracle multiplication: Any three-digit number by series of 1's and 9's, Division by Urdhva Tiryak Sutra (Vinculum method)	07
3	<b>Vedic Maths-Lightening Squares and Rapid Cubes</b> Squares of any two-digit numbers: Base method, Square of numbers ending in 5: Ekadhikena Purvena Sutra, Easy square roots: Dwandwa Yoga (duplex) Sutra, Square root of 2: Baudhayana Shulbasutra, Cubing: Yavadunam Sutra	04
4	<b>Vedic Maths-Enlighten Algebra and Geometry</b> Factoring Quadratic equation: Anurupyena, Adyamadyenantyamanty Sutra, Concept of Baudhayana (Pythagoras) Theorem, Circling a square: Baudhayana Shulbasutra, Concept of pi: Baudhayana Shulbasutra, Concept angle ( $\theta$ ) $0^\circ$ , $30^\circ$ , $45^\circ$ , $60^\circ$ and $90^\circ$ : Baudhayana number	04

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### List of Practical:

Sr.	List of Practical	Teaching Hours
1	Conduct workshops under the supervision of the course teacher to spread Awareness on the utility of Vedic Mathematics.	02
2	Students are required to visit nearby retail shops/local vendors to purchase stationery/vegetables/bread and butter and use tricks of Vedic maths of addition and Subtraction to calculate the amount to pay and receive the difference.	02
3	Students may share their experience with the class teacher in the form of audio video Presentations of 15 minutes.	02
4	If required, students can share their experiences in the form of a Project Report.	02
5	Any other Practical/Practice as decided from time to time	02

### Reference Books:

Sr. No.	Author/s	Name of the Book	Publisher
1	S. B. Tirthaji	Vedic Mathematics	Motilal Banarsidass Private Limited
2	V.G. Unkalkar	Magical World of Mathematics	Vandana Publishers, Bangalore