बिरसा मुंडा ट्रायबल युनिवर्सिटी
Birsa Munda Tribal University

राजपिपला, जि॰ नर्मदा Rajpipla, Dist. Narmda

Established by Tribal Development Department, Govt. of Gujarat

School of Science
B.Sc. (Chemistry) Programme
Subject Code & Name: - BS03IKCHE1 Vedic Mathematics

Teaching and Evaluation Scheme:

Teaching Scheme				Examination Scheme			
Credits				Component Weightage (%)			
				CCE		SEE	
L	T	P	Total	TH	PWE	TH	PWE
2	0	0	2	50	---	50	---

Programme Name	B.Sc. (Chemistry)
Semester	III
Course Code	BS03IKCHE1
Course Title	Vedic Mathematics
Course Content Type(Th./Pr.)	Theory
Credits	2
Sessions+ Lab. Per Week	2
Total Teaching/Lab. Hours	30 Hours
* 2 Laboratory = 1 Session	

Learning Objectives

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

Prerequisites (if any)

12th passed with any stream

Learning Outcomes

On the Completion of this course, students will able to:

1. Overcome the fear of maths.
2. Improved critical thinking.
3. Familiarity with the mathematical underpinnings and techniques.
4. Ability to do basic maths faster and with ease.
5. Appreciate the Mathematical advancements of Ancient India.

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Detailed Contents		
UNIT	**TOPIC/SUB-TOPIC**	**TEACHING HOURS**
I	**Introduction to Vedic Mathematics :** • Actual applications of the Vedic Sutras • Contribution of Indian Mathematicians (Varahamihira, Bhaskaracharya, Nilakantha Somayaji, Bharati Krishna Tirtha) in the context of Arithmetic • Addition & subtraction of algebraic expression • Multiplication Practical Application in " Compound Multiplication" Practice and Proportion in " Compound Multiplication" Vertically and Cross wise method Mixed Operation Deviation method	15
II	**Introduction of Division and Divisibility** **Division** • *Nikhilam Navtashcharam* Method (Division of Two digits Number) • *Paravartya Yojyet* Method (Division of Three digits Number) **Divisibility** • *Ekadhiken Purven* Method (Division of Two digits Number) • *Eknunen Purven* Method Applications of Division and Divisibility Square roots , Cube roots	15
Text Book(s)		
Unit I & II	i. Vedic mathematics, Sixteen simple mathematics formulae from Vedas, Jagadguru Swami Shri Bharati Krishna Tirthaji, Motilal Banarasidas, New Delhi, 2015 ii. Vedic Mathematics Made easy, Dahaval Bhatia, Jaico Publishing, New Delhi, 2011 iii. The Essential of Vedic mathematics, Rajesh Kumar Thakur, Rupa Publications, New Delhi, 2019	

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Practical

Reference Books

1. Vedic Ganit Nirdeshika Bhag-2, Vidya Bharti Akhil Bhartiya Shiksha Sansthan Kurushetra
2. Vedic Ganit, Motilal Banarsidas, New Delhi
3. Vedic Ganit Vihangam Drishti 1, Shiksha Sanskriti Uthhan Nyas Delhi
4. Lilavati of Bhaskracarya: A Treatise of Mathematics of Vedic Tradition

Web Resources

https://youtu.be/PDCOZtI8Hhc?feature=shared
https://youtu.be/itj6PPEiFKY?feature=shared
https://youtu.be/wgfXaMJLrRI?feature=shared
https://youtu.be/0djtSeiCpow?feature=shared
https://youtu.be/kdHywSgbLRg?feature=shared
https://youtu.be/rZCv7zgIBj4?feature=shared

Required Software(s) (if any)

L:: Lecture, **T::** Tutorial , **P::**Practical
CCE:: Continuous and Comprehensive Evaluation
(CCE Theory includes Mid Semester Examination, Assignment, MCQ quizzes, Seminar,
Reflective notes, class participation, case analysis and presentation, slip tests (announced/
surprised), attendance etc. or any combination of these)
PWE:: Practical Work Examination
(PWE includes Laboratory practical work, project work, viva simulation exercise work etc.)
SEE:: Semester End Evaluation

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