

To

The Principal
Vidya Bharati Mahavidyalaya,
Amravati.

Subject: - Submission of a proposal to start the Value added course in Mathematics.

Respected Sir,

The Faculty of Mathematics is herewith submitting the proposal to start the Value added Course in Commerce entitled **Certificate Course in Vedic Maths** from this academic year to cater the need of the students seeking their UG & PG degrees in the institution. This course shall be commenced from **14/01/2019**.

You are requested to peruse the proposal and grant the permission to introduce such a certificate course of immense relevance. Kindly endorse and oblige.

Date: - 12/1/2019


Head

Department of Mathematics

Encl: - 1. Copy of a proposal along with details of the course.
2. Time Table.
3. Admission form.

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Vidya Bharati Mahavidyalaya, Amravati

Department of Mathematics

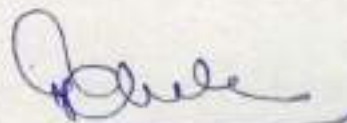
Skill oriented course/Value added course

Vedic Maths Certificate Course

2018-19 (w.e.f. 14/01/2019)

Time Table

Time	Day	Paper
8.30 am to 10.30 am	Monday	Paper I- VEDIC ARITHMETIC
8.30 am to 10.30 am	Wednesday	Paper II- VEDIC ALGEBRA
9.30 am to 10.30 am	Friday	PAPER- III - VEDIC GEOMETRY


HoD

Department of Mathematics

Vidya Bharati Mahavidyalaya, Amravati

Department of Mathematics

Skill oriented course/Value added course

Vedic Maths Certificate Course

Deptt of Mathematics, VBMV Amravati offers **Vedic Maths Training** certificate program that includes all level training. Candidates preparing for entrance exams, skill development, or for business purpose etc. can join certificate programme. This certificate programme includes an in-depth study of Vedic Maths sutras. After the successful completion of Vedic Maths training, a candidate is free to take Vedic Maths classes. This certification has not only helped students but also helped in generating self-employment. To develop innovative mathematics skills and invent their own methods instead of using a predefined method for solving a puzzle. It not only simplifies and eases the toughness of mathematics but also boosts the brain power. It cultivates an interest in numbers and eliminates the maths-phobia. Better and Much improved academic performances in school and Instant Results. Anyone can become a certified professional and get recognition in society. The importance of Vedic Mathematics lies in the fact that any type of complex and critical multiplication or division can be done with simplicity. Vedic Mathematics is a compilation of tricks that help in solving mathematical calculations quite easily. Vedic Mathematics is very easy to understand and practice.

Course Curriculum (Syllabus)

Name of the Course : Certificate Course in Vedic Mathematics

Course Duration : 30 Lectures

Eligibility : HSSC Or equivalent.

Medium : English, Sanskrit, Hindi, Marathi

Programme –Syllabus for (30 Lectures) certificate Course in Vedic Mathematics (Yearly Two Batches)

Paper I - VEDIC ARITHMETIC

Paper II - VEDIC ALGEBRA

Paper III - VEDIC GEOMETRY

Paper I- VEDIC ARITHMETIC

1. Multiplication

- (i) Urdhwatiryakabhyam method
- (ii) Nikhilam method, use of vinculum
- (iii) Combined operations of addition and subtraction

2. Division (up to three digits)

- (i) Nikhilam method
- (ii) Paravarta Yojayet method
- (iv) GCD and LCM

3 Divisibility tests

- (i) Anurupyen method
- (ii) Osculation method

4. Powers (up to three digits)

- (i) Squares and square roots
- (ii) Cubes and cube roots.

5. History of Indian Mathematics

Contributions in Arithmetic only of the following mathematicians.

Aryabhata (Fifth century), Brahmagupta, Mahaviracharya, Shrinivas Ramanujan

Paper II- VEDIC ALGEBRA

1. Multiplication (Two variables only)

- (i) Urdhwatiryakabhyam method
- (ii) Gunit Samucchya

2. Division (One variable, up to third degree)

- (i) Nikhilam method
- (ii) Paravarta Yojayet method
- (iii) GCD and LCM

3 Factorisation 16 marks

- (i) Anurupyen method
- (ii) Solving the equations up to third degree

4. Determinants and Partial fractions

5. History of Indian Mathematics

Contributions in Algebra only of the following mathematicians

Varah Mihir, Bhaskaracharya (12 the century), Nilkantha Somyaji, Mahaviracharya

PAPER- III - VEDIC GEOMETRY

1. Bodhayan Geometry

- (i) Bodhayan triplets-derivation- Shulbasutra
- (ii) Derivations of trigonometrical ratios

2. Trigonometry

- (i) Identities of trigonometrical ratios
- (ii) Inverse trigonometrical ratios.

3 Coordinate geometry

- (i) Equation to a straight line-various forms
- (ii) Conditions for parallel and perpendicular lines

4. Complex numbers

Modulus, Amplitude, Polar form, Square root, imaginary numbers, Geometrical Interpretation.

5. History of Indian Mathematics

Contributions in Geometry only of the following mathematicians

Madhavan, Nilkantha Somyaji, Permeswaran, Brahmagupta, Bhaskaracharya.

REFERENCE BOOKS ON VEDIC MATHEMATICS

- 1) **Bharatiya Krishna Teerth** : Vedic Mathematics (Motilal Banarasidas New Delhi, 2001)
 - 2) **Dr. Vyawahare-Chouthaiwale- Borgaonkar**: Intr.to Vedic Mathematics (Swadhaya mandal, Kille pardi, Gujarat, 2003)- **(Out of Print)**
 - 3) **Chouthaiwale-Kolluru**: Enjoy Vedic Mathematics (Sri Sri Publications Trust, Banglore, 2010) Ph (Chouthaiwale-98229 79039)
 - 4) **N.K. Jain Choudhari** : Vedic and Jain mathematics (Vishwa Punar Nirman Sangha, Talangkhedi, Nagpur, 2000)
 - 5) **V.G. Unkalkar** : Magical world of Mathematics, (Vandana Publishers Bangalore, 2008) Ph (Unkalkar – 098805 10369)
 - 6) **V.G. Unkalkar** : Excel with Vedic Mathematics, (Vandana Publishers Bangalore, 2009) Ph (Unkalkar – 098805 10369)
 - 7) **V.G. Heroor** : The History mathematics and Mathematicians of India (Vidya Bharti, Bangalore, Karnatak,2006) Ph. Heroor- 099001 14932
 - 8) **V.G. Heroor** : Jyopati (Rajasthan Sanskrit university, Jaipur, 2007) (Ph. – Heroor- 099001 149032)
 - 9) **Dr. Anant W. Vyawahare** : Bharatiya Ganeeti (Marathi script) (Nachiket Prakashan, Khamala Road, Nagpur.Ph. No. Vyawahare :- 9822739149)
 - 10) **Shyam Marathe** : Bharatiya Banitachya Adbuhut Riti (Marathi script) (Ajinkya Prakashan, Satara 1983) **(out of print)**
 - 11) **Shyam Marathe** : Bharatiya Ganeetinchi Charitra (Marathi script) (Sahitya Prasar Kendra, Nagpur, 1989)
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