FACULTY OF SCIENCES

SYLLABUS
of
Vedic Mathematics
For
Certificate course in Vedic Mathematics
Under Absolute Marks System with Grades

Session: 2019-20

The Heritage Institution

KANYA MAHA VIDYALAYA JALANDHAR
(Autonomous)

Session 2019-20
Course Name: Certificate course in Vedic Mathematics.
Course Title: Vedic Mathematics
Course Code: CVML-1331

Programme Specific Outcomes

After the successful completion of this certificate course, the students will be able to:

PSO 1: To enhance computational skills in maths.

PSO 2: Develop Analytical thinking through Vedic maths.

PSO 3: Enable further research in Indian mathematics.

PSO 4: Conduct seminar on the subject and bringing together scholars in mathematics.

PSO 5: Develop postal and online study courses on Indian mathematics.

PSO 6: Instil love and remove the fear of mathematics.

PSO 7: Promote Vedic culture.

PSO 8: Crack entrance on competitive exam.

Kanya Maha Vidyalaya , Jalandhar(Autonomous)

Curriculum and Scheme of Examinations
Certificate Course in Vedic Mathematics
Session 2019-20

Semester I						
Course Code	**Course Title**	**Course Type**	**Marks**			**Examination time (in Hours)**
			Total	**L**	**P**	
CVML-1331	Vedic Mathematics	C	100	100	-	3
Total			**100**			

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The students will be able to

CO 1: Develop the understanding of objectives and features of Vedic maths.

CO 2: Recognize the meaning of mathematical sutras in Sanskrit.

CO 1: Understand the concept of addition and subtraction using completing the whole and from left to right.

CO 2: Manage to solve the multiplication using vertically and crosswise and one more than the previous one method and demonstrate multiplication by 11, 12 and 13 by using Vedic sutras of multiplication.

CO 3: Distinguish between squaring numbers ending in 5 and squaring numbers near number 50 and manage to simplify algebraic squaring.

CO 4: Apply reverse squaring to find square root of number ending in 5 and manage to solve the square root of perfect square.

CO 5: Identify cube and cube roots, understand and apply division by 9 and understand the concept of division by using straight division.

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Time: 3 Hours   **Max.Marks: 100**

Instructions for the paper setters/examiners:
Eight questions of equal marks are to be set, two in each of the four Sections (A-D). Questions of Sections A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any Section.

UNIT-I
History of Vedic maths, why Vedic maths, salient features of Vedic maths, Vedic maths formulas, 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 Sutram from basis 100,1000,10,000.

UNIT-II
Multiplication by Urdhavtrighbhyam sutram, multiplication by Vinculum sutram, multiplication by Nikhilam sutram, fast multiplication by 11, multiplication of numbers consisting of all 9s, multiplication of numbers nearest to the base 10, and multiplication of numbers with sub base 50,500,5000.

UNIT-III
Meaning of Ekadhiken Sutram and its applications in finding squaring of numbers ending in 5, squares by Anurupeyana Sutram, square by Yavdunam thavadunikritya vargamcha yojyet 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
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

Reference books:

1. Sri Bharatikrishna Tirthaji,"Vedic Mathematics",Published by Motilal Banarsidass, 1965.ISBN 81-208-0163-6.
2. Williams K.R. "Discover Vedic Mathematics" Vedic Mathematics Research Group, 1984.ISBN 1-869932-01-3.
3. Wiliams K.R. and M.Gaskell "The Cosmic Calculator". Motilal Banarsidass ,2002.ISBN 81-208-1871-7.
4. Nicholas A.P., Williams,J. Pickles."Vertically and Crosswise". Inspiration books, 1984.ISBN 1-902517-03-2.

Name of the Head: Ms.Veena Deepak   **Signature:**

Name of Subject Teacher:Ms.Anand Prabha   **Signature**