

**KONGUNADU ARTS AND SCIENCE COLLEGE
(AUTONOMOUS)
COIMBATORE – 641 029**



**CURRICULUM AND SCHEME OF EXAMINATIONS (CBCS)
(2021-2022 and onwards)**

for the programme

CERTIFICATE COURSE ON VEDIC MATHEMATICS

Offered by

DEPARTMENT OF MATHEMATICS

Programme Code: VM02	Certificate Course in Vedic Mathematics
Course Code: 21CCVM01	Introduction to Vedic Mathematics
Duration: 6 Months	Instruction Hours/Cycle : 2

Syllabus

UNIT – I

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

Multiplication by Urdhavtrigbhyam sutram - multiplication by vinculum sutram – multiplication by Nikhilam sutram – fast multiplication by 11 – multiplication of numbers consisting of all 9's – multiplication of numbers nearest to the base 10 and multiplication of sub base 50,500,5000.

UNIT – III

Meaning of Ekadhiken sutram and its applications in finding squaring of numbers ending in 5 – squares of Anurupeyana sutram – squares 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.

UNIT – V

Contribution of Indian Mathematicians in light of Arithmetic and Algebra – Aryabhata – Brahmagupta – Mahaveeracharya – Bhaskaracharya – Varahmihir.

RECOMMENDED BOOKS FOR STUDY

1. Vedic Mathematics, Jagadguru Sankaracarya Swami Sri Bharati Krsna Tirthaji Maharaja, Motilal Banarsidass Publishers, New Delhi.
2. Vedic Ganita: Vihangama Drishti-1, Shiksha Sanskriti Utthan Nyas, New Delhi.
3. Bharatiya Mathematicians, Sharda Sanskrit Sansthan, Varanasi.
4. Leelavati, Chokhambha Vidya Bhavan, Varanasi.