# Tolani College of Commerce (Autonomous)

# तोलानी वाणिज्य महाविद्यालय ( स्वायत्त )

(Sponsored and Managed by Tolani Education Society, Mumbai - 400 021)
(Recognised Linguistic (Sindhi) Minority Institution, Affiliated to University of Mumbai)
Re-Accredited (3rd Cycle) by N.A.A.C. with 'A' Grade (CGPA 3.03)

**Knowledge is Supreme**

150-151, SHER-E-PUNJAB SOCIETY,
GURU GOBIND SINGH ROAD,
ANDHERI (EAST), MUMBAI-400 093.

Tel.     : (022) 6153 5455
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| Name of the Department/ Programme | Department of Business Mathematics <br> 1) Bachelor of Commerce <br> 2) Bachelor of Management Studies / <br> 3) B.Com. in Accounting and Finance / <br> 4) B.Com. in Banking and Insurance / <br> 5) B.Com. in Financial Markets / <br> 6) B.Sc. in Information Technology / <br> 7) Bachelor of Business Administration (Logistics) | | | | | | |
|---|---|---|---|---|---|---|---|
| Name of the Course | Indian Knowledge System (IKS): Vedic Mathematics | | | | | | |
| Semester | I | | | | | | |
| Number of Credits | 2 | | | | | | |
| Number of lectures | 30 | | | | | | |
| Lecture Duration | 60 minutes per lecture | | | | | | |
| Distribution of marks | CE | 20 | SEE | 30 | Total | 50 | |

## Learning Objectives of the Course

| Sr.No | Objectives |
|---|---|
| LOC1 | To enhance calculation speed and mental ability by providing alternative methods to perform arithmetic operations quickly. |
| LOC2 | To emphasize the development of problem-solving skills by introducing various strategies |
| LOC3 | To foster a deep understanding of numbers and their properties. |

## Learning Outcomes of the Course

| Sr. No | Outcomes |
|---|---|
| CO1 | These techniques involve breaking down complex calculations into simpler steps |
| CO2 | Vedic mathematics exercises are designed to enhance memory power and concentration by engaging students in mental calculations and visualization techniques. |
| CO3 | Develop and maintain problem-solving skills |

| Module. No | Syllabus in Details | Number of Lectures |
|---|---|---|
| **1** | Introduction and History of Vedic Mathematics, Sutras of Vedic Mathematics<br><br>Addition & Subtraction: Addition from left to right, Addition of list of numbers- Shudh method, Subtraction- Base method | 10 |
| 2 | Multiplication with the series of 9s, Multiplication of a number by same number of 9s<br>Multiplication of a number by greater number of 9s, Multiplication of a number by lesser number of 9s<br>Multiplication by 11, Multiplication by 111, 2-digit multiplication, 3-digit multiplication | 10 |
| 3 | Division: Division by 9 , Divisibility Test of numbers by 11<br>Squaring numbers ending in 5, Squaring decimals and fractions | 10 |

Reference Books:

1) Learn Vedic speed mathematics by Chaitanya Patil
2) Vedic Mathematics for all ages by Vandana Singhal
3) Vedic Mathematics made easy by Dhaval Bhatia
4) The essentials of Vedic Mathematics by Rajesh Thakur
5) Vedic Mathematics New Horizons by Dr. S.K. Kapoor
6) Vedic Mathematics for students by Manu Tripathi

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**Scheme of Evaluation Pattern**
**Table 1A: Scheme of Continuous Evaluation (CE)**
**Scheme of Evaluation Pattern**

| Sub-components | Maximum Marks | Conditions for passing |
|---|---|---|
| 1) Written assignment | 10 | a) A learner must be present for each of the sub-components. |
| 2) MCQ Based Test | 10 | b) The subtotal of both sub-components must be minimum 08 marks |
| Total | 20 | |

**Table 1B: Scheme of Semester End Examination (SEE) Evaluation**
**Question Paper Pattern for Semester End Examination (SEE)**

**Maximum Marks:30       Minimum Marks to Pass:12       Duration:1 Hour**

Note: All questions are compulsory. Each question has an internal choice.

| Question Number | | Nature of Questions | Maximum Marks |
|---|---|---|---|
| 1) | | Attempt any 2 of the following: (From Module I) | 10 |
| | a) | | |
| | b) | | |
| | c) | | |
| 2) | | Attempt any 2 of the following: (From Module II) | 10 |
| | a) | | |
| | b) | | |
| | c) | | |
| 3) | | Attempt any 2 of the following: (From Module III) | 10 |
| | a) | | |
| | b) | | |
| | c) | | |