

1. MATHEMATICS

(Based on Class 11 & 12 CBSE syllabus)

Class 11 Topics

- Sets, Relations & Functions
- Trigonometric Functions
- Principle of Mathematical Induction
- Complex Numbers
- Linear Inequalities
- Permutations & Combinations
- Binomial Theorem
- Sequences & Series
- Straight Lines
- Conic Sections
- Limits & Derivatives

Class 12 Topics

- Relations & Functions
- Inverse Trigonometric Functions
- Matrices & Determinants
- Continuity & Differentiability
- Application of Derivatives
- Integrals
- Differential Equations
- Vector Algebra
- Three Dimensional Geometry
- Probability

2. PHYSICS

(Class 11 & 12 syllabus – Conceptual + Numerical)

Class 11 Topics

- Physical World & Measurement
- Kinematics
- Laws of Motion
- Work, Energy & Power
- Motion of System of Particles



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Navigating Futures. Transforming Lives.

- Gravitation
- Properties of Bulk Matter
- Thermodynamics
- Behaviour of Perfect Gas
- Oscillations & Waves

Class 12 Topics

- Electrostatics
- Current Electricity
- Magnetic Effects of Current
- Electromagnetic Induction
- Alternating Current
- Electromagnetic Waves
- Ray Optics
- Wave Optics
- Dual Nature of Radiation
- Atoms & Nuclei
- Semiconductor Electronics

3. ENGLISH

(Grammar & comprehension based)

- Vocabulary
- Synonyms & Antonyms
- Sentence Correction
- Spotting Errors
- Fill in the Blanks
- Idioms & Phrases
- Para Jumbles
- Reading Comprehension

4. GENERAL APTITUDE

- Numerical Ability
- Percentages
- Ratio & Proportion
- Time & Work
- Time, Speed & Distance
- Simple & Compound Interest

- Logical Reasoning
- Series & Pattern Recognition

5. GENERAL KNOWLEDGE

- Indian History
- Indian Geography
- Indian Polity (Basic)
- Indian Economy (Basic)
- Current Affairs
- Maritime Awareness
- Shipping & Ports (Introductory level)

IMUCET EXAM PATTERN – OVERVIEW

Subject	Level
Mathematics	Class 11 & 12
Physics	Class 11 & 12
English	Basic to Moderate
Aptitude	Moderate
General Knowledge	Basic + Maritime

IMPORTANT NOTES FOR STUDENTS

- **Mathematics & Physics carry the highest weightage**
- Speed and accuracy are crucial in CBT mode
- Regular mock tests improve performance
- GK is scoring with smart preparation
- English grammar and comprehension are easy marks



WHY PREPARE WITH NAVPATH ACADEMY

- Founded by a **Master Mariner with 30+ years of sea experience**
- Guidance by **servicing Merchant Navy officers**
- Structured IMUCET-oriented syllabus
- Daily tests & mock examinations
- Premium campus near **KSRTC Bus Stand, Kottayam**