

## Indian Coast Guard Navik Exam Pattern 2019

S.No	Test Type	Name of the Subjects
1.	Objective Type	Physics
2.		Basic Chemistry
3.		Mathematics
4.		Quantitative Ability
5.		English
6.		Reasoning
7.		General knowledge
8.		Current affairs

## India Coast Guard Navik Syllabus 2019

### Mathematics

- Additions of Vectors.
- Binomial Theorem.
- Trigonometry.
- Algebra.
- Complex Numbers.
- Differential equations.
- Direction Cosines and Direction Ratios etc.
- Transformation of Axes.
- Inverse Trigonometric Functions.
- Properties of Triangles.
- The product of Vectors.
- Random Variables and Probability Distributions.
- The Straight Line.
- Coordinate Geometry.
- Pairs of Straight Lines.
- Integration.
- Circle.
- Ellipse.
- The system of circles.
- Mathematical Induction.
- Partial fractions.
- Matrices.
- Theory of Equations.
- Hyperbolic Functions.
- Permutations and Combinations.
- Probability.
- Parabola.
- Locus.
- Hyperbola.
- Limits and Continuity.

- Definite Integrals.
- Differentiation.
- Three-Dimensional Coordinates.
- Applications of Derivatives.
- Differential equations

## **India Coast Guard 10+2 Exam Syllabus**

### **English:**

- Articles.
- Active & Passive Voice.
- Sentence Rearrangement.
- Synonyms.
- Vocabulary.
- Verb.
- Tenses.
- Direct/Indirect Speech.
- Adverb.
- Subject-Verb Agreement.
- Fill in the Blanks.
- Transformation of Sentences.
- Comprehension.
- Antonyms
- Idioms & Phrases.
- Grammar.
- Unseen Passages etc.

### **General Knowledge:**

- Science & Technology.
- Indian Constitution.
- Current Affairs – National & International
- History – India & World.
- Geography – India & World.
- Indian National Movement.
- About India.
- Economy
- Cultural Heritage.
- General Policy.

### **Physics:**

- Thermodynamics and Statistical Mechanics
- Electronics
- Mathematical Methods
- Classical Mechanics and Relativity
- Nuclear and Particle Physics
- Experimental Physics

- Electromagnetic Theory
- Atomic and Molecular Physics
- Condensed Matter Physics
- Quantum Theory and its Applications

### **Basic Chemistry:**

- Chemistry of Transition elements
- Inorganic reaction mechanism
- Nuclear chemistry
- Photochemistry
- Electrochemistry
- Acids and Bases
- Redox Reactions
- Structure and Bonding
- Analytical Chemistry
- Analytical Techniques
- Thermodynamics
- Organic Synthesis
- Quantum Chemistry
- Chemical Kinetics
- Bio-inorganic chemistry

### **Numerical Aptitude:**

- Discount.
- Percentage.
- Average.
- Profit & Loss.
- Simple & Compound Interest.
- Mensuration.
- Time & Work.
- The test of Arithmetical and Numerical abilities.
- Number Systems including questions on Simplification.
- Ratio & Proportion.
- Fractions.
- Time & Distance.
- Tables & Graphs,
- L.C.M.
- Decimals.
- H.C.F.