

## COAST GUARD NAVIK (GD)

### SECTION- I

- **SCIENCE**
- **MATHEMATICS**
- **ENGLISH**
- **REASONING**
- **GENERAL AWARENESS**

### SCIENCE

- ⦿ Nature of Matter, Universe (Planets/Earth/Satellites/Sun), Electricity and its application
- ⦿ Force and Gravitation, Newton's Laws of Motion, Work, Energy and Power  
Heat & Temperature, Metals and Non-metals, Carbon and its Compounds, Measurements in Science, Sound & Wave Motion, Atomic Structure

### MATHEMATICS

- ⦿ Mathematical Simplification, Ratio and Proportion, Algebraic Identities, Linear Equation and Polynomials, Simultaneous Equations, Basic Trigonometry
- ⦿ Simple Mensuration, Geometry, Measures of Central Tendency (Average, Median and Mode)
- ⦿ Interest, Profit, Loss and Percentage, Work, Time, Speed and Distance

### ENGLISH

- ⦿ Passage, Preposition, Correction of sentences, Change active to Passive/Passive to active voice.
- ⦿ Change direct to Indirect/Indirect to Direct, Verbs/ Tense/Non Finites, Punctuation.
- ⦿ Substituting phrasal verbs for expression, Synonyms and antonyms, Meaning of difficult words.
- ⦿ Use of adjectives, Compound Preposition.
- ⦿ Use of pronouns.



## **REASONING**

- ⊙ Spatial, Numerical Reasoning and Associative Ability, Sequences, Spellings  
Unscrambling, Coding and Decoding.

## **GENERAL AWARENESS**

- ⊙ Geography: Soil, Rivers, Mountains, Ports, Inland, Harbours
- ⊙ Culture and Religion, Freedom, Movement, Important National Facts about India, Heritage, Arts, and Dance
- ⊙ History, Defence, Wars and neighbours, Awards and Authors, Discoveries, Diseases and Nutrition
- ⊙ Current Affairs, Languages, Capitals and Currencies, Common Names, Full Forms and Abbreviations
- ⊙ Eminent Personalities, National Bird/Animal/Sport/Flower/Anthem/Song/Flag/Mountains
- ⊙ Sports: Championships/Winners/Terms/Number of Players

## **SECTION-II**

### **➤ PHYSICS**

### **➤ MATHEMATICS**

## **PHYSICS**

- Physical world and measurement, Kinematics, Laws of Motion, Work, Energy and Power. Newton's laws and applications, circular motion.
- Motion of System of particles and rigid body, gravitation, Property of Bulk Matter, thermodynamic, behavior of perfect gas and kinetic theory, Oscillation and Waves.
- Electrostatics, Current Electricity, Magnetic Effects of current and magnetism, Electromagnetic Induction and alternating currents, Electromagnetic Waves.
- Optics, Dual Nature of matter and radiation, Atom and Nuclei
- Electronic devices, Communicating systems



## MATHEMATICS

- Sets, Relations and Functions
- trigonometric functions.
- Algebra
- Principle of Mathematical Induction,
- complex numbers and quadratic equations,
- linear inequalities,
- permutation and combinations,
- binomial theory,
- sequence and series,
- Matrices,
- determinants.
- Vector and Three Dimensional Geometry
- Linear Programming
- Coordinate Geometry
- Straight lines,
- conic section,
- introduction to three-dimensional geometry.
- Calculus
- Limits and derivatives,
- Continuity and differentiability,
- Applications and derivatives,
- Integrals, applications of the integrals,
- differential equations.
- Mathematical Reasoning Probability
- Statistics, Probability.
- Mathematical Simplification,
- Ratio and Proportion,
- Algebraic Identities,
- Linear Equations and Polynomials,
- Simultaneous Equations,
- Basic Trigonometry
- Relations and Functions
- Measures of Central Tendency (Average, Median and Mode)