#### **BSF Head Constable RO RM Exam Pattern**

Part	Subject (12th Level CBSE)	No of Questions	Max Marks	Exam Duration
Part 1	Physics	40	80 Marks	
Part 2	Mathematics	20	40 Marks	
Part 3	Chemistry	20	40 Marks	02 Hours
Part 4	English and GK	20	40 Marks	
Total		100	200 Marks	

# BSF Head Constable Radio Operator Mechanic Syllabus - Topic Wise

#### **Mathematics**

- Trigonometry
- Cartesian System of Rectangular Coordinates
- Statistics
- Complex Numbers
- Quadratic Equations
- Definite Integrals
- Exponential and Logarithmic Series
- Sets and Set Theory
- Probability Function
- Circles
- Relations and Functions
- Logarithms
- Sequences and Series
- Conic Sections
- Permutations and Combinations
- Vectors
- Limits and Continuity
- Differentiation
- Introduction to Three Dimensional Geometry
  - Straight Lines
- Applications of Derivatives
- Indefinite Integrals Binomial Theorem
- Matrices
- Determinants

### **Physics**

- Relativity
- Atomic
- Quantum Theory and its Applications
- Electromagnetic Theory

- Statistical Mechanics
- Nuclear and Particle Physics
- Mathematical Methods
- Classical Mechanics
- Experimental Physics
- Electronics
- Molecular Physics
- Condensed Matter Physics
- Thermodynamics

### Chemistry

- Thermodynamics
- Classification of Elements
- General Organic Chemistry
- Carboxylic Acids
- Phenols
- Ketones
- Molecular Structure
- Chemical Bonding
- General Chemistry
- Structure of Atom
- Electrochemistry
- Periodicity
- Solid State
- Solutions
- Biomolecules
- Hydrocarbons
- Alcohols
- Haloalkanes
- Aldehydes
- Redox Reactions
- Chemical Kinetics
- States of Matter
- Equ<mark>il</mark>ibr**i**um
- Surface Chemistry
- Processes of Isolation of Elements
- Coordination Compounds
- P, D, F Block Elements
- Hydrogen
- D Block Elements
- Alkali and Alkaline earth metals (S Block)
- Haloarenes
- Ethers
- Environmental Chemistry
- Amines

• Chemistry in Everyday Life

### **General Knowledge**

- Awards
- Authors
- Geo-political Current affairs
- Current affairs related to Defense
- National Independence movement
- Flower
- Ports
- Winners
- Terms
- Common Names
- Full forms
- Soil
- Rivers
- Religion
- Dance
- Heritage and Arts
- Diseases and Nutrition
- Wars and
- Neighbours
- Defence
- Culture
- Religion
- Languages
- Capitals
- Dance
- Currencies
- Bird
- Animal
- Mountains
- Inland Harbours
- Number of Players
  - Culture
- Abbreviations
- Discoveries
- Current Affairs
- History
- Anthem
- Important National Facts
- Heritage and Arts
- Song
- Flag
- Monuments

- Personalities
- Freedom Movement
- Championships

## **English**

- Active and Passive Voice
- Completion
- Spelling Test
- Error Correction (Underlined Part)
- Sentence Improvement
- Synonyms
- Sentence Arrangement
- Substitution
- Transformation
- Passage Completion
- Spotting Errors
- Substitutes
- Para Completion
- Joining Sentences
- Idioms and Phrases
- Sentence
- Error Correction (Phrase in Bold)
- Prepositions
- Antonyms
- Fill in the blanks