

### HITSEEE Exam Pattern

| Name of Subjects            | No. of Question | Time Duration |
|-----------------------------|-----------------|---------------|
| Physics                     | 15              | 1 Hour        |
| Chemistry                   | 15              |               |
| Mathematics                 | 15              |               |
| English & General knowledge | 15              |               |

#### **HITSEEE Mathematics Syllabus**

- Limit, continuity, and differentiability
- Statistics and probability
- Matrices and determinants
- Integral calculus
- Trigonometry
- Permutations and combinations
- Differential equations
- Sets, relations, and functions
- Sequences and series
- Mathematical induction
- Coordinate geometry
- Binomial theorem and its simple applications
- Vector algebra
- Complex numbers and quadratic equations
- Mathematical reasoning
- Three-dimensional geometry

### **HITSEEE Physics Syllabus**

- Rotational Motion
- Gravitation
- Properties of Solids and Liquids
- Thermodynamics
- Work, Energy, and Power
- Current Electricity



- Magnetic Effects of Current and Magnetism
- Kinetic Theory of Gases
- Oscillations and Waves
- Electrostatics
- Physics and Measurement
- Kinematics
- Laws of Motion
- Electromagnetic Waves
- Optics
- Dual Nature of Matter and Radiation
- Atoms and Nuclei
- Electronic Devices
- Communication Systems
- Electromagnetic Induction and Alternating Currents

#### **HITSEEE Chemistry Syllabus**

- Basic Concepts in Chemistry
- Equilibrium
- Redox Reactions and Electrochemistry
- Chemical Kinetics
- Surface Chemistry
- Classification of Elements and Periodicity in Properties
- General Principle and Processes of Isolation of Metals
- Hydrogen
- Chemical Thermodynamics
- Solutions
- P Block Elements
- d and f Block Elements
- Coordination Compounds
- Environmental Chemistry
- Purification and Characterization of Organic Compounds
- Basic Principles of Organic Chemistry
- Hydrocarbons
- Organic Compounds Containing Halogens
- Organic Compounds Containing Oxygen
- Alcohols, Phenols, and Ethers
- Organic Compounds Containing Nitrogen
- Polymers
- Biomolecules
- Chemistry in Everyday Life
- Principles Related to Practical Chemistry
- S Block Elements (Alkali and Alkaline Earth Metals)
- States of Matter
- Atomic Structure



• Chemical Bonding and Molecular Structure

#### HITSEEE English & General knowledge Syllabus

- Geography
- Indian History
- Physics
- Famous Books & Authors
- Inventions in the World
- Sports
- Indian Parliament
- Environment
- Chemistry
- Indian Culture
- Famous Days & Dates
- Indian Economy
- Botany, etc.
- Indian Politics
- Zoology
- Basic Computer
- Sentence Arrangement
- Fill in the blanks
- General English
- Substitution
- Para Completion
- Idioms and Phrases
- Antonyms
- Joining Sentences
- Transformation
- PrepositionsSentence
- Completion Active and Passive Voice
- Error Correction (Underlined Part)
- Spotting Errors
- Error Correction
- Sentence Improvement
- Synonyms
- Passage Completion
- Spelling Test

