



# Stellar

## Entrance Examination (SEE)

### Curriculum

For Admission to B.Tech in Computer Science – Corporate Driven Program

**Stellar Institute of Technology**

## Exam Structure

The Stellar Entrance Examination (SEE) is designed to test conceptual understanding, problem-solving skills, and logical reasoning across core academic subjects.

Component	Detail
Total Questions	45
Total Marks	180
Marks per Question	+4
Negative Marking	1 for each wrong answer
Classes Covered	9, 10, 11 & 12 (CBSE / ISC / State Boards level)
Difficulty Level	High (Conceptual + Application-based)

## Subject-wise Distribution

The examination is divided into four main sections:

Subject	Questions	Marks
Physics	15	60
Mathematics	15	60
Computer Science	8	32
Chemistry	7	28
Total	45	180

# Physics (15 Questions | 60 Marks)

Based on Classes 9–12 Physics

## Core Focus:

- Conceptual understanding Numerical problem solving
- Real-world application of physics principles

## Topics Covered:

Class 9–10

- Motion (Kinematics, Graphs)
- Laws of Motion
- Work, Energy & Power
- Gravitation
- Sound & Waves
- Light (Reflection & Refraction)
- Electricity & Magnetism (Basic)

Class 11–12

- Kinematics & Projectile Motion
- Newton's Laws & Circular Motion
- Work, Energy, Power
- Oscillations & Simple Harmonic Motion
- Waves
- Electrostatics
- Current Electricity

Magnetic Effects of Current Electromagnetic Induction  
Optics (Ray & Wave) Modern Physics (Photoelectric Effect, Atoms & Nuclei)

## Question Style:

Numerical problem solving  
Graph interpretation Concept-based MCQs Multi-step reasoning problems

# Mathematics (15 Questions | 60 Marks)

Based on Classes 9–12 Mathematics

## Core Focus:

- Logical reasoning
- Mathematical thinking
- Analytical problem solving

## Topics Covered:

Class 9–10

- Linear Equations
- Quadratic Equations
- Polynomials
- Arithmetic & Geometric Progressions
- Coordinate Geometry
- Trigonometry (Basics & Identities)
- Statistics & Probability
- Mensuration

Class 11–12

- Functions & Graphs
- Limits & Continuity
- Differentiation

Applications of Derivatives  
Integration (Basic) Matrices  
& Determinants Vector  
Algebra 3D Geometry  
Probability (Advanced)  
Complex Numbers

## Question Style:

Concept-based MCQs Multi-step calculations  
Graph-based reasoning  
Optimization & minimization problems

# Computer Science (8 Questions | 32 Marks)

Based on Classes 9–12 CS / Informatics Practices / Logical Thinking. No prior programming language mastery is required — logic matters more.

- Core Focus:

- Algorithmic thinking  
Logical reasoning  
Problem-solving  
mindset

- Topics Covered:

Class 9–10 Level

- Basics of Computers
- Input–Process–Output cycle
- Number systems (Binary, Decimal)
- Flowcharts & Pseudocode
- Logical operators
- Basics of Algorithms

Class 11–12 Level

- Programming Fundamentals (Python / Java basics)  
Variables, Data Types Loops & Conditional  
Statements Functions & Recursion (Basics)  
Arrays / Lists Time Complexity (Introductory)  
Searching & Sorting Concepts Basics of Data  
Structures (Stack, Queue) Real-world problem  
solving using code logic

## Question Style:

- Output prediction Logic tracing
- Algorithm-based MCQs
- Pseudocode analysis

# Chemistry (7 Questions | 28 Marks)

Based on Classes 9–12 Chemistry

## Core Focus:

- Conceptual clarity Application of chemical principles Numerical and reasoning-based questions

## Topics Covered:

Class 9–10

- Structure of Atom
- Chemical Bonding
- Periodic Classification
- Acids, Bases & Salts
- Metals & Non-metals
- Chemical Reactions
- Carbon & its Compounds

Class 11–12

- Atomic Structure
- Thermodynamics Chemical
- Equilibrium Electrochemistry
- Chemical Kinetics Solutions
- Organic Chemistry (Basic Reactions)
- Environmental Chemistry

## Question Style:

- Concept-based MCQs
- Reaction analysis Numericals
- (Stoichiometry) Assertion–Reason type questions

## Skill Areas Tested Across All Subjects

The SEE assesses a candidate's readiness for a demanding technology program by testing the following key skills:

- Analytical thinking
- Conceptual clarity
- Numerical accuracy
- Logical reasoning
- Time management
- Problem-solving mindset

## Purpose of the Stellar Entrance Examination

The Stellar Entrance Examination (SEE) is specifically designed to:

- Identify high-potential students, not rote learners
- Reward logic, curiosity, and analytical thinking
- Ensure students entering Stellar can thrive in a corporate-driven, project-intensive B.Tech program



# Lets Chat

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