

NS-HS Academy

AP Polytechnic - Exam Pattern & Syllabus

Exam Pattern

Feature	Details
Total Questions	120 Questions
Total Marks	120 Marks
Exam Duration	2 Hours (120 Minutes)
Marking Scheme	+1 Mark for each correct answer.
Negative Marking	No negative marking for incorrect answers.
Language	The question paper is available in English, Telugu, and Urdu.
Syllabus Basis	Questions are based on the 10th Class (SSC) syllabus.
Sectional Weightage	Mathematics: ~50%, Physics: ~25%, Chemistry: ~25%

Complete Syllabus

Mathematics (60 Questions / 60 Marks)

- 1) **Number System & Algebra:**
 - Real Numbers & Sets
 - Polynomials & Quadratic Equations
 - Theory of Equations & Progressions (AP, GP)
 - Matrices & Partial Fractions
- 2) **Coordinate Geometry & Geometry:**
 - Coordinate Geometry
 - General Geometry concepts
 - Mensuration (Surface Areas & Volume)
- 3) **Trigonometry:**

- Trigonometry fundamentals and applications

4) **Advanced Topics:**

- Permutations & Combinations
- Binomial Theorem
- Exponential & Logarithmic Series

5) **Statistics & Probability:**

- Probability & Statistics
- Random Variables
- Mathematical Modelling

Physics (30 Questions / 30 Marks)

1) **Mechanics:**

- Units & Dimensions, Vectors
- Kinematics & Friction
- Work, Power & Energy

2) **Heat & Sound:**

- Heat & Thermodynamics
- Simple Harmonic Motion (SHM) & Acoustics

3) **Optics:**

- Reflection & Refraction of Light (Flat and Curved Surfaces)
- The Human Eye & The Colourful World

4) **Electricity & Magnetism:**

- Electric Current & Ohm's Law
- Circuits & Electromagnetism
- Sources of Energy

Chemistry (30 Questions / 30 Marks)

1) **Fundamental Concepts:**

- Atomic Structure & Classification of Elements (Periodic Table)
- Chemical Bonding & Molecular Structure
- Chemical Reactions & Equations

- Acids, Bases & Salts

2) **Applied Chemistry:**

- Principles of Metallurgy
- Carbon Compounds & Fuels
- Electrochemistry

3) **Environmental & Industrial Chemistry:**

- Environmental Chemistry
- Polymers
- Water Technology & Corrosion

At **NS-HS Academy**, we have engineered a strategic curriculum specifically designed to help students achieve maximum marks. Our approach goes beyond standard teaching by implementing a structured and result-oriented pattern in every course we offer. This methodology is delivered by our highly qualified faculty, who provide expert and personalized coaching tailored to each student's unique learning style. We focus on building a strong conceptual foundation, ensuring every individual masters the core subjects with confidence. This commitment to personalized guidance and structured learning is the key to our students' consistent success.