

NIO Technical Assistant Exam Pattern

Paper – I

Subject Names	Questions Count	Total Marks	Negative Marks	Time Duration
Mental Ability Test (General Intelligence, Quantitative Aptitude, Reasoning, Problem Solving, Situational Judgement etc)	50	100	No Negative marking	One Hour

Paper – II

Subject Names	Questions Count	Maximum Marks	Negative Marks	Time Duration
General Awareness	25	75 (3 Marks For Every Correct Answer)	Minus One Mark For Every Wrong Answer	30 Minutes
English Language	25	75 (3 Marks For Every Correct Answer)	Minus One Mark For Every Wrong Answer	

Paper – III

Subject	Questions	Maximum	Negative	Time
---------	-----------	---------	----------	------

Names	Count	Marks	Marks	Duration
Concerned Subject	100	300 (3 Marks For Every Correct Answer)	Minus One Mark For Every Wrong Answer	90 Minutes

CSIR NIO Technical Assistant Syllabus - Topic Wise

Mental Ability

- Verbal Reasoning
- Summary Questions
- Reading Comprehension
- Blood Relations
- Logical Sequence of Words
- Jumbled Paragraphs/Para-jumbles
- Assertion & Reason
- Puzzles
- Analogy
- Classification
- Coding and Decoding
- Data Interpretation (Tables, Charts, Graphs)
- Logical Venn Diagram
- Spontaneous Reaction Tests
- Number Series
- Data Sufficiency
- Logical Reasoning
- Caselets
- Direction
- Sequence
- Missing Characters

Quantitative Aptitude

- Simplification
- Unitary Method
- Decimal Fractions
- Ratio and Proportions
- Number System
- HCF , LCM
- Percentage
- Profit and Loss

- Average
- Simple and Compound Interest
- Algebra
- Data Interpretation
- Time and Distance
- Time and Work
- Menstruation (2D and 3D)

Reasoning

- Situational Judgement.
- Non-Verbal Reasoning.
- Verbal Classification.
- Puzzles
- Letter and Symbol Series.
- Data Sufficiency.
- Verbal Reasoning.
- Data Interpretation.
- Analytical Reasoning.
- Logical Reasoning.
- Analogies
- Artificial Language.
- Logical Problems.
- Statement and Conclusion
- Matching Definitions.
- Cause and Effect.
- Statement and Argument.
- Making Judgments.
- Number Series.
- Essential Part.
- Theme Detection.
- Logical Deduction.

General Awareness

- Indian National Movement
- Current Events – National & International
- Chandigarh History
- Cultural Heritage
- Economy
- Indian History
- Indian Constitution
- General Policy
- Geography – India & Chandigarh
- Sports
- Science & Technology

English Language

- Joining Sentences.
- Theme Detection,
- Sentence Improvement.
- Topic rearrangement of passage
- Fill in the blanks.
- Idioms and Phrases.
- Error Correction (Phrase in Bold).
- substitution
- Data Interpretation.
- Spelling Test.
- Sentence Arrangement
- Spelling Test.
- Sentence Completion.
- Sentence Arrangement.
- Error Correction (Underlined Part).
- Transformation
- prepositions
- Passage Completion.
- Spotting Errors.
- Antonyms
- Homonyms,
- synonyms
- Active and Passive Voice.
- Word Formation
- Direct and Indirect speech
- Para Completion.

Civil Engineering

- Steel Structures.
- Environmental Studies etc.,
- Reinforced Concrete Structures.
- PSC Structures.
- Solid Mechanics, Structural Analysis.
- Civil Engineering Materials and Construction.
- Hydrology & Water Resources Engineering
- Soil Mechanics and Foundation Engineering.
- Costing, Estimation, and Specifications.
- Hydraulic Structures.
- Fluid Mechanics.
- Environmental Engineering.
- Construction and Project Management.
- Transportation Engineering.
- Bridge Engineering.

- Concrete Technology.
- Surveying.

Electrical Engineering

- Electronic Devices
- Protective Devices.
- Battery.
- Electrical Machines.
- Digital Fundamentals.
- Electro-Magnetic Circuit.
- Electric Materials.
- Electrical Circuits (AC & DC Circuits).
- Electric Measurement & Measuring Instruments.
- Control System.
- Electronic Devices And Circuits.
- Microprocessor And Its Applications.
- Electrical Machines.
- Power System.
- Sub-Station.

Electronics

- Analytical, Optical Instrumentation.
- Digital Electronics.
- Analog Electronics.
- Transducers, Mechanical Measurement and Industrial Instrumentation.
- Control Systems and Process Control.
- Signals, Systems, and Communications.
- Electrical and Electronic Measurements.
- Basics of Circuits and Measurement Systems.

Instrumentation

- Analytical Instrumentation.
- Systems and Communications.
- Optical Instrumentation.
- Control Systems and Process Control.
- Industrial Instrumentation.
- Basics of Circuits and Measurement Systems.
- Signals.
- Analog Electronics.
- Transducers
- Biomedical Instrumentation.
- Digital Electronics.
- Mechanical Measurement.

- Electrical and Electronics Measurements.

General Mathematics

- Time and Work.
- Chain Rule.
- Height and Distance.
- Volume and Surface Area.
- Problems on H.C.F and L.C.M.
- Stocks and Share.
- Races and Games.
- Allegation or Mixture.
- Compound Interest.
- Decimal Fraction.
- Square Root and Cube Root.
- Time and Distance.
- Ratio and Proportion.
- Pipes and Cistern.
- Simple Interest.
- Boats and Streams.
- Problems on Ages.
- Surds and Indices.
- Banker's Discount.
- Permutation and Combination.

General Science

- Physics.
- Chemistry.
- Defense.
- Agriculture.
- Space.
- Environment.
- Biology.
- Agriculture.