IGCAR Exam Pattern - Post Wise

IGCAR Technical Officer Paper Pattern

Type of Questions	Subject Names	Total Questions	Total Marks	Exam Duration
Objective questions	Respective Trade	75	225	2 Hours

IGCAR Scientific Assistant C, Stipendiary Trainee Grade I Exam Pattern

Question Type	Names of topics	Questions	Total marks	Test Duration
Objective questions	Relevant Subjects	100	300	2 hours

Stipendiary Trainee Category II, Technician C Exam Pattern

Stage I

Type of Questions	Subject Names	Total Questions	Total Marks	Exam Duration
Objective questions	Mathematics	20	60	2 Hours
	Science	20	60	
	General Awareness	10	30	
Total		50	150	

Stage II

Type of Questions	Subject Names	Total Questions	Total Marks	Exam Duration
1	**Advanced Test in respective Trade**	**50**	**150**	**2 Hours**

IGCAR UDC Paper Pattern

Level	Exam type	Subject Names	Total questions	Marks	Time Duration
Level-I	Objective	General English	100	100	90 Min
		General Knowledge			
		General Intelligence & Reasoning			
		Quantitative Aptitude (Arithmetic)			
Level-II	Descriptive	English language and Comprehension	–	–	3 hours

The Downloading Instructions For IGCAR Technician Syllabus 2020 Are:

- Candidates, you need to visit the official website of Indira Gandhi Center for Atomic Research at www.igcar.gov.in
- Then visit the homepage.
- Find the IGCAR Syllabus 2020 Download link on the Recruitment page.
- Open the link and then find the subject wise IGCAR Exam Syllabus 2020 that are present or not in the link.
- After checking download the IGCAR Syllabus For Stipendiary Trainee in a prescribed format.
- Take the hard copy or copy and save to your PC or laptop.
- Download IGCAR Syllabus and exam pattern for the Future preparation purpose.

IGCAR Syllabus 2020 - Post-Wise

General Knowledge

- Indian Economy
- Persons in the News
- Current Events
- Science and Technology
- Political Awareness/ Polity
- Important Awards & Honors
- Places in the News
- Sports etc.

Aptitude

- Simplification
- HCF & LCM
- Partnership
- Average
- Percentage
- Ration & Proportion
- Profit & Loss
- Number Series
- Time and work
- Time and Distance
- Permutations & combinations

General English

- Synonyms
- Narration
- Proposition
- Anonyms
- Voice Change
- Error in Verb
- Adverb
- Proposition etc.

Quantitative Ability

- Charts and diagrams.
- Tables and Case lets.
- Averages.
- Data Interpretation.
- Quadrilaterals and Polygons.
- Mensuration.
- Percentages.
- Sets.
- Probability.
- Functions.
- Interest.
- Number Systems also.
- Circles.
- Number Theory.
- Algebra.
- Linear Equations.
- Surds and Indices.
- Time and Distance also.

General Awareness

- Socioeconomic
- Political & Cultural History of Modern India with special emphasis on Indian National Movement
- Indian Constitution
- Indian Political System
- Governance and Public Policy
- Logical Reasoning
- Analytical Ability and Data Interpretation
- International Relations and Events
- Movement and formation of the Haryana state
- Current Affairs – Regional
- National and International
- Society
- Culture
- Heritage
- Arts and Literature of Tamil Nadu
- Social and Economic Geography
- Physical and Demography of Tamil Nadu
- Environmental issues
- Disaster Management- Prevention and Mitigation Strategies.

Mathematics

- Trigonometric Ratios up to Transformations
- Random Variables and Probability Distributions
- Inverse Trigonometric Functions
- Complex Numbers
- Hyperbolic Functions
- Properties of Triangles
- Mathematical Induction
- Functions
- Permutations and Combinations
- Binomial Theorem
- Theory of Equations
- Partial fractions
- Matrices
- Addition of Vectors
- Measures of Dispersion
- Probability Distributions
- Triangular Arrays
- Limits and Continuity
- Differentiation & Applications of Derivatives
- Coordinate Geometry

Chemistry

- Chemical thermodynamics
- Solid-state and high-temperature chemistry
- Electrochemistry
- Spectroscopy and laser
- Radiochemistry
- Advanced separation techniques
- Actinide Chemistry
- Trace / ultra-trace analytical techniques synthesis
- Characterization of nano-ceramics and Chemical sensors

Science

- Basics of nuclear physics
- Nuclear Reactions
- Fission and Fusion Reactors
- Radioactivity
- Nuclear Spectrometry
- Nuclear Medicine

Civil Engineering

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

Electronics Engineering

- Digital Communications.
- Microprocessors & Microcontrollers.
- Computer Hardware
- Analog Communications
- Basic Electronics/ Power Electronics.

- Circuit Theory/ Digital Electronics.
- Advanced Communications.
- Measurement & Instrumentation.
- Power Electronics & Drives.
- Industrial Electronics.
- Analog Electronics.

Mechanical Engineering Syllabus

- Engineering Mechanics.
- The Strength of Materials.
- Engineering Materials.
- Fluid Machines.
- Machining and Machine Tool Operations.
- Management Information System.
- Meteorology and Inspection.
- Product design and Development.
- Theory of Machines.
- Thermodynamics.
- Energy conservation.
- Heat Transfer.
- Operations Research.
- Fluid Mechanics.
- Inventory Control.
- Machine Design.
- Industry Safety.
- Metal Casting.
- Machining and Machine Tool Operations.
- Computer Integrated Manufacturing Design.
- Production Planning and Control.
- Inventory Control.

Electrical Engineering

- Switch Gear and Protection.
- Electronics Devices.
- Electrical Instrumentation.
- Electromagnetic Theory.
- Network Analysis.
- Control Systems.
- Electrical Machines.
- Power Electronics & Drives.
- Power System Protection.
- Analog and Digital Electronics.
- Power System Analysis & Control.
- Power Systems.

- Utilization Of Electrical Energy.

Chemical Sciences

- Chemical thermodynamics
- Solid-state and high-temperature chemistry
- Electrochemistry
- Spectroscopy and laser
- Radiochemistry
- Advanced separation techniques
- Actinide Chemistry
- Trace / ultra-trace analytical techniques synthesis
- Characterization of nano-ceramics and Chemical sensors

Safety Engineering

- Robotics and Development of Intelligent machines
- Thermal Hydraulics and Structural Mechanics
- Design of critical components
- Modelling studies
- Safety Analysis
- Wireless networking
- Parallel computing
- Embedded and Simulator systems
- Nondestructive Evaluation and Reliability
- Development of new engineering materials
- Experimental and computational studies in

(i) novel processing and fabrication methods

(ii) mechanical behaviour

(iii) damage tolerance and crack growth

(iv) structure and properties