



Haryana Public Service Commission

Bays No. 1-10, Block-B, Sector-4, Panchkula

ANNOUNCEMENT

It is hereby announced for the information of candidates who have applied for the post of **Safety Officer in HPGCL, Power Department, Haryana** in response to advertisement No. 05/2025 published on 26.06.2025, that the Commission has decided as under :-

Scheme/ Pattern of Exam :-

1. Subject Knowledge Test

- Duration of the exam: 03 hours.
- Syllabus is enclosed.
- The question paper will be in English language.
- Total Marks: 150
- Paper will be subjective type.
- No candidate will be called for the interview /viva-voce unless she/he secures a minimum of 35% marks in the test.
- The number of the candidates called for interview will be 03 times, including bracketed candidates if any, of the number of advertised posts provided that they have secured the minimum cut-off marks of 35%.
- The weightage of the Subject Knowledge test will be 87.5%.

2. Interview

- The weightage of the interview will be 12.5%.

Note :

- Attendance at each stage is mandatory.
- The final merit list will be prepared by adding the marks of the Subject Knowledge Test and interview.

Dated: 28-09-2026


Deputy Secretary
Haryana Public Service Commission
Panchkula


Syllabus for the post of Safety Officer in HPGCL, Power Department, Haryana.

1. National and International scenario of Skill Development:

- Vocational Education System in India
- Current National Policy on Skill Development in India
- Objective and Need for Skill Development in India
- Recommendations of various Committees on Vocational Education
- Scope of Skill Development

2. Academic and Administrative Management:

- Organisation structure of Government ITI's,
- Reporting systems, reporting authorities and General Administration
- SWOT analysis, Vision and mission, goals, Strategic Planning, Internal/external environment management, Resource mobilization, library management, maintenance of academic facilities.
- Problem solving techniques, personal management, value analysis, faculty norms

3. Skill Development Schemes:

- Various Skill Development Schemes run by Central and State Government like Craftsmen Training Scheme,
- Pradhan Mantri Kaushal Vikas Yojana (PMKVY), National Skill Qualification Framework (NSQF), State Skilling Schemes.
- Crafts Instructor Training Schemes (CITS).
- National Apprentice Promotion Schemes (NAPS)
- SANKALP Scheme, STRIVE Scheme

4. Engineering Mechanics and Engineering Drawing:

- Force and System of forces, equilibrium of rigid bodies, free body diagram, Lami's theorem. Laws of Coulomb friction, Equilibrium of bodies involving dry friction, belt friction. Centre of Gravity and moment of inertia.
- Stress of strain: Concept of stress and strain, simple stresses, tensile, compressive, shear, bending and torsion, stress-strain curves, elastic constants.
- Engineering Graphics/Technical Drawing: Drawing equipments and use of Instruments, Conventions in drawing practice, Dimensioning, Scales.
- Theory of Projection of Planes and Solids, Orthographic Projection.

5. Fundamentals of Thermal Science:

- Introduction to thermodynamics, Properties, forms of energy, thermodynamic systems, steady flow systems,
- Types of work, thermodynamic processes, laws of thermodynamics, Carnot theorem
- Concept of enthalpy & entropy
- Introduction to I.C. Engines: Two, four stroke S.I. and C.I. engines. Otto cycle, Diesel cycle.
- Basic idea of Refrigeration and Air Conditioning Cycle.

6. Basic Knowledge on Workshop Science:

- Measuring instruments & gauges, Introduction to manufacturing processes, Basic terminology used. Materials properties and their application: Different engineering materials, Properties, Nomenclature, Basics of heat treatment.
- Fitting: Introduction, Tools used in fitting, measuring and marking, sawing, Filing, Tapping and die, Introduction to drills.
- Welding: brief introduction, Electric Arc, Gas welding process and equipment, Soldering and Brazing process. Types of sheets (ferrous/non-ferrous), Standard sheet sizes and their measurement, Tools used in sheet metal.
- Metal Cutting: Introduction, Classification of machine tool and cutting tools, Basic operations on lathe, Drilling, Shaper, Milling, Cutting tool material, Work-holding devices, Cutting parameters i.e. speed, feed and depth of cut.
- Casting: Pattern types, moulding sand and its properties, casting process and defects.


Dy. Secretary
HPSC

7. Basic Electrical Science:

- Network Laws and Theorems: Network Laws for D.C. networks-Kirchhoff's laws, network elements, Superposition theorem, Thevenin's and Norton's Theorems, Maximum Power Transfer Theorem.
- Single Phase A.C. Circuits: Single-phase EMF generation, form factor, peak factor, rms value, areage value, Phasor diagram, Resistive, Inductive and Capacitive circuits. A.C. series and parallel circuits. Analysis of simple RLC-series circuits, Resonance, Q factor, Three Phase A.C. Circuits (General relations)
- Magnetic Circuits and Transformers: Analogy between electric and magnetic circuits, Magnetic Circuits, B-H Curve, Hysteresis Loop, Inductances in series and parallel, Hysteresis and Eddy current losses.
- Transformers- constructional details. EMF equation, rating and phasor diagram on no-load and loaded conditions.
- Electrical Machines: Three phase Induction motors construction, principle of working and their applications. Electrical Instruments: Basic principles of Moving iron, PMMC, dynamometer and Induction type instruments, torque equation, Dynamometer type Wattmeter.

8. Basic Electronics & Communication Science:

- Electronics instruments: Role and importance of general-purpose test instruments, CRO, CRT, Semiconductor Diodes and Applications, Review of PN Junction Diode, V-I Characteristics, Ideal Diodes, LED, Tunnel Diode, Photodiode.
- Halfwave, Fullwave and Bridge rectifiers, Passive filters, Regulators, Line regulation and load regulation, Zener Diode as voltage regulator, concept of switched mode power supply (SMPS), Bipolar Junction Transistor, FET, MOSFET.
- Operational Amplifiers, Applications of op-amp as summing amplifier, differentiator and integrator. Digital Electronics: Number system and logic gates, NAND and NOR as universal gates, SR and JK flip-flops.
- Introduction to Computers: Generation of computers, Characteristics and classifications of computers. Components of Computers, Types of memory, Computer Software and their types, Operating System, Algorithm and flow chart.
- Computer Networks & Communication: LAN, MAN, WAN, Network Topologies, Modes of Data Communication. Introduction to Internet and its Safeguard, Router, switches, Hub, Bridges.

9. CIVIL:-

- Surveying instruments and their uses, various civil engineering survey, building by-laws. Properties and tests on construction materials like bricks, cement, coarse aggregate, steel reinforcement.
- Units of different fluid properties, type of fluid and types of flow, flow measurement.
- Construction management techniques like bar chart, milestone, network CPM/PERT, construction equipments, notice inviting tender, administrative approval, technical sanction, specification.
- Test on water and waste water, environment protection act, sources of air pollution, National clean air program.
- Types of dams and canals, rain fall measurement, safe bearing capacity of soil, methods of building estimates, forms used in public works department.

Dated: 28-09-2026


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