

भारतीय सूचना प्रौद्योगिकी अभिकल्पना एवं विनिर्माण संस्थान कर्नूल



**INDIAN INSTITUTE OF INFORMATION TECHNOLOGY
DESIGN AND MANUFACTURING KURNOOL**

(An Institute of National Importance under Ministry of Education, Govt. of India)

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RECRUITMENT OF JUNIOR TECHNICIAN(MECHANICAL)

EXAMINATION SYLLABUS

Level -I :

Aptitude:

Averages, Number Systems, Profit and Loss, Time and Work, Problems on Trains, Compound Interest, Decimal Fractions, Calendar, Area, Problems on Numbers, Square Root and Cube Root, Boats and Streams, Probability, Interest, Percentage, Ratio, Time and Distance, Problems on Ages, Partnership, Clock, Simplifications, Volume and Surface, Problems on H.C.F And L.C.M, Logarithm, Chain Rule, Pipes and Cistern, Odd Man Out and Series, Height and Distance.

Reasoning:

Number Series Compilation, Missing Number Finding, Continuous Pattern Series, Direction Sense Test, Puzzle, Verbal Classification, Matching Definitions, Logical Deduction, Series Compilations, Classification, Missing Character Finding, Odd Man Out, Blood Relations, Analogy, Coding And Decoding, Truth Verification of The Statement, Syllogisms, Analogies, Verbal Reasoning, Statement And Conclusions, Letter And Symbol Series, Logical Problems, Logical Sequence Of Words, Arithmetic Reasoning, Data Sufficiency and Numerical Ability.

General English:

Antonyms, Synonyms, Spelling Check, Change of Voice, Spotting Errors, Sentence Improvement, One Word Substitute, Selecting Words, Sentence Corrections, Idioms and Phrases, Communication Skills, Common Error Detection, Sentence Compilation, Ordering of Words, Ordering of Sentences, Verbal Analogies, Sentence Formation, Completing Statements, Change of Speech.

Data Interpretation:

Pie Chart, Bar Chart, Line Chart, Table Chart and their interpretations.

General Knowledge:

Indian History, Indian Economy, Indian Culture, Environmental Science, Awards And Honors, Famous Places In India, World Organization, Sports, Books And Authors, Famous Personalities, Days And Years, World Geography, Basic General Knowledge, Physics, Biology, Indian Politics, Indian Geography, General Science, Chemistry, Technology, Inventions, Current Affairs.

Computer Fundamentals:

Components of computer, Input and output devices, Operating Systems, Word processing software, data representations and conversions.

Level -II:

Safety:

Concepts of Safe working practices, environment regulation and housekeeping.

Engineering Drawing:

Principles of dimensioning, symbols, application of the first angle and third angle projection, geometrical construction of shapes, orthographic projection, sectioning.

Materials:

Properties of engineering materials, Iron and Steel, non-ferrous metals and alloys, heat treatment, stress-strain diagrams for engineering materials, Fluids and fluid properties.

Process and machineries:

Hand tools and measurement tools, Different types of castings, design of patterns, moulds and cores; solidification and cooling. Fundamentals of hot and cold working processes; forging, rolling, extrusion, drawing and sheet metal forming processes. Constructional features, Specifications, types, working principles and mechanism in lathe, drilling machine, milling machine, boring machines, shapers, gear hobbing. Working principle of welding, perform Arc & Gas welding, brazing and soldering operation.

Tools:

Basic machine tools; single and multi-point cutting tools, tool geometry and materials, tool life and wear; principles of non-traditional machining processes; principles of jigs and fixtures.

Level -III:

- i) Lathe, milling, drilling, tapping and grinding operations
- ii) Tooling operations
- iii) Metal joining equipment and operations
- iv) Measuring tools
- v) Piping and plumbing, sheet metal works