

Indian Institute of Information Technology,
Design and Manufacturing, Kancheepuram

Ref: IITDM/NT/R/01/2023 dated 16.06.2023

05.10.2023

SYLLABUS FOR THE POST OF JUNIOR TECHNICIAN (MECHANICAL)

Levels	Details	Remarks
Level 1	Screening Test (Objective Type)	All Shortlisted Candidates notified
Level 2	Written Test (Descriptive Type)	Only for the Shortlisted Candidates of Level 1 Examination
Level 3	Practical/Trade Test	

• **Level 1 & Level 2**

Safety: Concepts of Safe working practices, environment regulation and housekeeping.

Engineering Drawing: Principles of dimensioning, symbols, application 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. Principles of welding, brazing and soldering. 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 and brazing 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.

Computer Fundamentals: MS office.

• **Level 3: (Practical Test/Trade Test)**

Lathe, milling, drilling, tapping and grinding operations

Tooling operations

Metal joining equipment and operations

Measuring tools

Piping and plumbing, sheet metal works

Note: The list of shortlisted candidates, schedule and instructions to the candidates will be uploaded in the website shortly. The candidates are advised to check the website regularly.



AOP
Registrar
5/10/23