



IITPKD/R/NF/03/2022/40

21-Jun-2023

**Recruitment for the post of Junior Technician (Mechanical Engineering) (Post Code : 2207)
vide Advt. No.: IITPKD/R/NF/03/2022 dated 21 Dec, 2022.**

Syllabus for Level II test:

- a) Marking and measuring tools: Steel rule, Measuring tape, straight edge mitre square, try square, bevel square, combination square, marking knife, marking gauge, mortise gauge, wing compass, divider, outside and inside calipers.
- b) Cutting tools: Hand saw, Tenon saw, firmer chisel, bevel edge firmer chisel parting chisel mortise chisel, jack plane, wooden and metal, smoothing plane, rebate plane, spoke shave.
- c) Striking tools: Mallet, Claw hammer.
- d) Holding devices: Carpenters Bench vice, G-clamp. Miscellaneous tools: Rasp cut file, scraper, pincers, ratchet and screw drivers, Oil stone, Saw set.
- e) Power tools: Circular saw, Planer machine, Router, Portable Drilling machine, angle grinder, table saw, chop saw, straight grinder, eccentric sander, dremel kit.
- f) Wood working: Familiarization with basic wood working tools/ hand tools.
- g) Lathe work: Familiarization with lathes- principal parts, work holding device, measuring instruments, accessories & attachments. Plain turning to the given accuracy, Precision measuring devices, digital vernier and Micrometer, Taper turning, Form turning (ball and curve), thread cutting, chamfering, Combination of above operations, Work on shaper Familiarize with the parts, accessories and attachments. Operations on Shaper.
- h) Welding practice: D.C. arc welding, A.C. arc welding, Gas welding Horizontal, flat, vertical and overhead welding. Edge preparation of welded joint such as single V, double V etc. Pipe welding, linear and round Flame cutting
- i) Sheet metal: Familiarization of sheet metal and fabrication tools, scribes, dividers, trammel points, set square, punches, prick punches, center punches, Hand groover, rivet, chisels, hammers, riveting hammers, ball peen hammers, mallet, snips/ shears, pliers, hand seamers (tongs) files, stakes. Measuring instruments in sheet metal - folding rule, common rule, steel circumference rule, Vernier calipers, micrometer, combination set, and Thickness gauges, Plate gauge. Manufacturing of simple components using sheet metal and various sections of aluminum and other metals, nonmetals and alloys.
- j) Fitting practice: To assemble components of different mating surface as per required tolerance by different surface finishing operations using different fastening components, tools and check functionality. Different mating surfaces like dovetail fitting, radius fitting, combined fitting etc.

The Level II test shall be conducted in-person on 01st July 2023 (Saturday) at Nila Campus, IIT Palakkad, details of which shall be shared with shortlisted candidates over email.

**-Sd-
Registrar(i/c)**