



**Syllabus for the post of ASSISTANT WORKSHOP MANAGER**  
**WRITTEN TEST & SKILL TEST**

1. **Foundry Shop:** Understanding of basic steps in casting operation, terminology, process flow; mould making process and tools; sand testing equipment; working and operation of equipment using in casting shop; Safety precautions for foundry.
2. **Machine Shop:** Standard machine tools and their operations; Cutting tools for various machines, cutting tool materials, tool geometry; Cutting fluids, classification; Grinding machine types and operations, types of grinding wheels, specifications; Safety precautions for machine shop
3. **Assembly Shop:** Processes in fitting shop; Equipment; Layout procedure; File work; Thread cutting tools; Operation and types of chisels, scrapers, dividers, calipers.
4. **Welding Shop:** Welding processes and equipment; operations of welding machines; selection of consumables such as electrode, flux, nozzles, gas etc.; types of welds, joints and positions; Safety precautions for welding
5. **Smithy, Forging and Sheet Metal Work:** Knowledge of equipment and tools for smithy, forging and sheet metal work; Operations related to Smithy, forging and sheet metal work; Knowledge of control parameters to achieve defect-free parts; Safety precautions
6. **Metrology:** Understanding related to operation and working principles of measuring equipment and tools used for inspection on shop floor; Knowledge of standards of measurement; Measurement of Surface roughness
7. **Advanced Manufacturing:** Understanding related to operation and working principles of advanced manufacturing and inspection equipment such as CNC Machines, 3-D Printers, Coordinate Measuring Machine; Knowledge of computational tools for component fabrication; Knowledge of Programming for component fabrication; Reverse Engineering of components on CMM
8. **General Skills:** Planning & performing simple repair, overhauling of different machines and checking functionality, skills to execute pipe joints, dismantling and assembling valves and fittings. Testing for leakages, planning and performing basic day to day preventive maintenance, safety aspects, Knowledge of GFR.

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