RECRUITMENT OF NON-TEACHING POSTS (REF.:ADVT. NO.:03/2023)

Name of the Post	:	Technician (Level - 3) (Central Workshop)
Details of the Scheme & Pattern of Examination:	:	<u>PART A :</u> • Total Questions :100 (MCQ Type) • Maximum Marks :100 • No Negative Marking <u>Breakup</u> ○ General Awareness (20) ○ Reasoning (20) ○ Mathematics (20) ○ Test of English/Hindi Language (30) ○ Computer Awareness (10) <u>PART B :</u> • Specialization (Central Workshop): 30 Questions
Duration of Examination	:	2.5 hours

- The Question Paper shall be Bilingual (English & Hindi) except the Section for the Test of Language wherever applicable.
- The medium of Part-B will be English only.

SYLLABUS OF EXAMINATION

PART A:

General Awareness: Includes questions relating to History, Indian Polity & Constitution, Art & Culture, Geography, Economics, General Policy, Science & Scientific Research, National/International Organizations /Institutions, current events, environment etc.

Reasoning: Includes questions relating to both verbal and non-verbal types, analogies, similarities, differences, space visualization, problem solving, analysis, judgment, decision making, visual memory, discrimination, observation, relationship, concepts, arithmetical reasoning, verbal and figure classification, arithmetical number series etc.

Mathematics: Includes questions relating to Simplification, Decimals, Fractions, L.C.M., H.C.F., Ratio & Proportion, Percentage, Average, Profit & Loss, Discount, Simple & Compound Interest, Mensuration, Time & Work, Time & Distance, Tables & Graphs, etc.

Test of English or Hindi: In addition to the testing of candidate's understanding of the English or Hindi Languages, it's Vocabulary, Grammar, Sentence Structure, Synonyms, Antonyms and its correct usage etc. would also be tested.

Computer Applications: Includes questions on Operating System, MS Office, MS Word, MS Excel, Power Point, Tally, Internet, E-mail, Antivirus and various online tools used in day- to-day office work.

PART B:

o **Central Workshop**

1. Computer awareness: Basic knowledge of Computer Applications, viz; MS Word, MS Excel, Power Point etc. Internet, MS-DOS, Data Entry, Softwares knowledge, applications of computers in mechanical engineering

2. Welding Type of welding (Arc welding & gas welding), TIG & MiG welding, Brazing and soldering, welding defects, maintenance of tools and machines

3. Turning Basic principle of turning, description and specification of lathe machine, operations of lathe e.g. turning, taper turning, kurling, thread cutting etc., maintenance of lathe.

4. Machining Metal cutting principles, cutting tool, basic principles of machining with milling and drilling, shaping machine, grinding etc., machining tool, maintenance of machines.

5. Fitting Functions and working of fitting tools such as files, chisels, scrapers, try squares etc., maintenance of all tools.

6. CNC Operation Components and function of CNC operation, handling of CNC m

7. Metrology and Inspection Linear and Angular Measurement, Measurement of Surface Finish and Measurements of Screw threads and Gauges

8. Mechanics of Materials Stresses and Strains, Resilience, Moment of Inertia, Bending Moment and Shearing Force, Bending Stresses, Columns, Torsion and Springs

9. Engineering Materials Scope of Material Science, Crystallography, Metals and Alloys, Heat Treatment, Plastics and Advanced Materials

10. Engineering Mechanics Laws of Forces, Moment, Friction, Centre of Gravity and Simple Machines

Note:- The Syllabus is suggestive and indicative in nature having only broader areas for reference. The Candidate is expected to have the holistic and expanded knowledge of the subject/syllabus.

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