## Syllabus for the post of Welder Trainee Cat-I (Internal) Circular No.CRP/PER/R/2024/276, DT.14.03.2024

## PART – I (Subject related to the post)

Introduction and definition of welding Elementary First Aid, Importance of Welding in Industry Safety precautions in Shielded Metal Arc Welding, Gas Welding and Fire Fighting Equipments, Workshop Practice, Workshop Calculation & Science, Employability Skills, Machine Shop Practice, Handling of Measuring Instruments: Marking of different jobs, Metals used in Fabrication, Types of Fabrication joints, Welding Symbols, Methods of Bending Plates, Angel Iron etc. Cold Bending and Hot Bending etc. Bending of Angles and Channels, Press Work Flame Straightening Methods, Pipes and Pipe Fitting, Hand Riveting, Cold and Hot Methods of Riveting, Different Process of Metal Joining Methods, Basic Electricity Applicable to Arc Welding and related Electrical Terms & Definitions, Heat and Temperature and its Terms related to Welding, Arc Welding Power Sources, Advantages and Disadvantages of A.C. and D.C. Welding, Different Gasses used in Gas Welding and their Characteristics, Electrode: Types, Functions of Flux, Coating Factor, Sizes of Electrode Coding of Electrode, Brass Types Properties and Welding Methods, Copper Types Properties and Welding Methods, Aluminium and its Alloys, Cast Iron and its properties types, Typed of Pressure Vessels, Jigs and Template Making, Template for marking joint section, Assembly: Procedure and Technique for Assembly, Chipping, Grinding, Finishing & Painting etc.

## **PART-II** (General Studies)

General Knowledge, General English, Quantitative Aptitude & Numerical Ability, Test Of Reasoning, Computer Basics.