Module 1: Basic Fitting Process
- General discipline in the Institute
- Safety precautions in sheet metal work shop
- Metals and non-metals
- Specification of Steel Flats and Strips
- Raw material information CRCA, HRCA.MS

Module 2: Basic Sheet Metal : Tools
- Technical Terms in Sheet Metal work
- Measuring and Marking Tool
- Outside Micrometers
- Measurement of angles
- Combination set
- Scribe/Scratch awl
- Cutting Tool
- Hacksaw frame and blade
- Drill (Parts and function)
- Sheet Metal Mallets & Hammers
- Screwdriver
- Types of Vices
- Stake Holders
- Punches

Module 3: Basic Sheet Metal Process
- Sheet metal seams
- Folding and joining allowance
- Notches in sheet metal
- Development of surface
- Templates

Module 4: Fastening
- Rivets - Types & Uses
- Riveted Joints & spacing of rivets in joints
- Special sheet metal rivets and their applications
- Defect in rivetted joints
- Fastening of Sheet Metal (Various types of Fastening)

Module 5: Soldering
- Solders
- Soft soldering
- Soldered Joint
- Fluxes types and description
- Portable hand forge with blower
Module 6: **Welding Processes**

Sheet Metal Worker - Basic Welding Processes
Surface Preparation
Corrosion and Surface Protection
Classification of welding processes
High Pressure Oxy-acetylene welding equipment and accessories
Welding blowpipe
Types of oxy-acetylene flames
Safety in manual metal arc welding
Arc Welding Machines
Setting up of arc welding plant
Material preparation method
Faults in gas welding
Weld defects - Causes and remedies
Defects in Arc welding - definition, causes and remedies

Module 7: **Fabrication**

Methods of developments. - Introduction to aluminum fabrication, and its applications.
Ferrous and Non-Ferrous metals.
Laying out pattern of conical elbows. pattern development of lobster back bends.
Chemical and Physical properties of Aluminium. - Use of Aluminium and its Alloys
Description of hand punch Machine. hand and Power operated drilling Machines. Drill Bits, parts and effects of cutting angles.
Pipe Bending and Methods

Module 8: **Modern Machines & Materials**

Latest sheet metal cutting techniques: Plasma cutting, Laser cutting, water jet cutting and punching etc.
Specification of aluminium channels angles, strips, tubes beadings, packing rubber, cardboard, glasses etc.
Tools and equipments used in aluminium fabrication. - Assembly & Sub assembly: Gauring assembly, Door assembly, Chassis assembly, Cabinet assembly, Power pack assembly etc.

Module 9: **Finishing**

Process of painting.
Spray painting.
Etch primer painting,
Powder coating, buffing, grinding, and sanding. - Selection of different grit sizes.
Sanding S : election of different grit sizes.

Module 10: **Autocad**
Auto CAD software and its uses.
Installing procedure of Auto CAD
Auto CAD command & use of different menus of Auto CAD

NOTE: - It may be noted that apart from the topics detailed above, questions from other topics prescribed for the educational qualification of the post may also appear in the question paper. There is no undertaking that all the topics above may be covered in the question paper.