

For Electrician, Fitter, Diesel Mech., and Welder TP-25hrs & TT-7 hrs. per WEEK

For COPA TP- 30hrs. & TT-6 hrs. per WEEK

## **LESSON PLAN (FOR RELATED THEORY PART)**

<b>TRADE :</b> Welder		<b>SEM:</b>	I	<b>YEAR-I</b>
<b>LEARNING OUTCOME</b>	2	<b>EXERCISE NO</b>		<b>LESSON NO (REF TO PRACTICAL):</b>

DAY (1)	Hrs (2)	Major topics/Lesson Title (Reference syllabus) (3)	Details of each day plan (Explanation) /Sub topics (Reference NIMI book) (4)	Text and media content to be displayed for viewing (5)	Media nature (ie., 2D image/ 3D image / animation video/ Simulation etc.,) (6)	Whether Direct teaching or digital video for self learning (7)	Type of assessment Assessment (like Quiz, Identify, Fill in the blank, MCQ, etc.) (8)
1	1	Different process of Metal Joining Methods - Bolting and Riveting	Bolts, Nuts and Studs using situation	Text & Images	PPT Slides	Direct teaching /Video	Quiz and Assignment
			Advantages of using Nuts and Bolts	Text & Images	PPT Slides	Direct teaching /Video	Quiz and Assignment
			Name of different types of Bolts and Rivets	Text & Images	PPT Slides	Direct teaching /Video	Quiz and Assignment
			Types and Applications of different types of bolt	Text & Images	PPT Slides	Direct teaching /Video	Quiz and Assignment
			Name of Riveted joint	Text & Images	PPT Slides	Direct teaching /Video	Quiz and Assignment
			Length of Rivets	Text & Images	PPT Slides	Direct teaching /Video	Quiz and Assignment
2	1.5	Different process of metal joining methods : Soldering, brazing and seaming	Soldering, Soldering iron and Solder-Definition, Types, Purpose, Features	Text & Images	PPT Slides	Direct teaching /Video	Quiz and Assignment
			Soldering flux ( function , Types , Selectin Criteria), Portable hand forge and dipping solution	Text & Images	PPT Slides	Direct teaching /Video	Quiz and Assignment

		seaming	Soft Soldering, brazing and Silver brazing, Brazing ( Methods, Advantages) and seaming - Safety Precautions, Types of Solder Joint, Blow lamp	Text & Images	PPT Slides	Direct teaching /Video	Quiz and Assignment
3	1.5	Types of welding joints and its applications, Edge preparation and fit-up for different thicknesses. Surface Cleaning	Basic Weld Joints, Types of Weld	Text & Images	PPT Slides	Direct teaching /Video	Quiz and Assignment
			Nomenclature of Butt and Fillet Weld	Text & Images	PPT Slides	Direct teaching /Video	Quiz and Assignment
			Necessity of materials preparation for welding	Text & Images	PPT Slides	Direct teaching /Video	Quiz and Assignment
			Tools and equipments used to cut metals	Text & Images	PPT Slides	Direct teaching /Video	Quiz and Assignment
			Necessity of edge preparation, Edge Preparation of Butt Weld and Fillet Weld	Text & Images	PPT Slides	Direct teaching /Video	Quiz and Assignment
			Surface Cleaning - Importance and Methods of Cleaning	Text & Images	PPT Slides	Direct teaching /Video	Quiz and Assignment