

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

TRADE : Welder

SEM:

I

YEAR-I

<b>LEARNING OUTCOME</b>	<b>W- 19</b>	Steel types, welding methods of steel, weld decay and weldability  Knowledge of types of steel help in fabricating machine and machine parts
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EXERCISE NO

LESSON NO  
(REF TO  
PRACTICAL):

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	2 hr	Types of Steel	Austentitic , Ferritic, Martensetic	Text & Images	PPT Slides	Direct teaching /Video	Quiz , Assignment, Games
		Steel Welding methods	a) Oxy – Acetylene Gas welding b) Arc Welding Gas metal arc welding, Shielded metal arc welding, gas tungsten arc welding	Text & Images	PPT Slides	Direct teaching /Video	Quiz , Assignment, Games
2	2 hr	Chilling Plates	During the welding extra heat is removed by chilling plates to over come the distortion.	Text & Images	PPT Slides	Direct teaching /Video	Quiz , Assignment, Games
3	2 hr	Alloying elements in steel	Carbon, Nickel, Chromium, Molybdenum, Silicon, Manganese, Vanadium, Tungstem, phosphorus, Sulphur, Boron.	Text & Images	PPT Slides	Direct teaching /Video	Quiz , Assignment, Games
4	1 hr	Weld Decay	This take place in heat affected zone , weld bead start to Rust after Welding.	Text & Images	PPT Slides	Direct teaching /Video	Quiz , Assignment, Games
5	1 hr	Weldability of base metal	Mild Steel has very good weldability in comparison to cast iron	Text & Images	PPT Slides	Direct teaching /Video	Quiz , Assignment, Games