

Lesson plan		
Name of Faculty	Smt. Renu Bala	
Discipline	Electrical Engineering	
Semester	5th	
Subject	SOLAR PANEL INSTALLATION AND MAINTENANCE	
Duration	Week (From 01 August to Dec 2025) Theory:04	
Week	Theory	
	Lecture Day	Topics
1st	Day1	1. Check site conditions, collect tools and raw materials
	Day2	Basics on solar energy and power generation systems
	Day3	Use and handling procedure of solar panels
	Day4	Energy storage, control and conversion
2nd	Day1	Basic electrical system and functioning
	Day2	Mechanical equipment and its functioning
	Day3	Maintenance procedure of equipment
	Day4	Site survey, design and evaluation of various parameters
3rd	Day1	Tools involved in installation of system
	Day2	Quality and process standards
	Day3	Occupational health and safety standards
	Day4	Revision/class test
4th	Day1	2. Installation of Solar Panel
	Day2	Solar energy system components such as panels, batteries, charge controllers, inverters
	Day3	Significance of volts, amps and watts: series and parallel connection
	Day4	Voltage requirement of various equipment
5th	Day1	Panel mounting and inclination and angle of tilt
	Day2	Placement of solar panel mounting
	Day3	Sunlight and direction assessment
	Day4	Site surveying methods and evaluation parameters
6th	Day1	Tools involved in installation of system
	Day2	Revision/class test

	Day3	3. Coordinate colleagues at work
	Day4	Company's policies on incentives, delivery standards, and personnel management
7th	Day1	Importance of the individual's role in the workflow
	Day2	Reporting structure
	Day3	Communicating effectively
	Day4	Building team coordination
8th	Day1	Revision/class test
	Day2	4. Safety at workplace
	Day3	Maintaining the work area safe and secure
	Day4	Handling hazardous material
9th	Day1	Operating hazardous tools and equipment
		Emergency procedures to be followed such as fire accidents, etc.
	Day2	Revision/class test
	Day3	5. Concept of Solar Tracking System
	Day4	Revision/class test
10th	Day1	Revision/class test
	Day2	Revision of chapter-1
	Day3	Class test
	Day4	Assignment of chapter -1
11th	Day1	Revision of previous year question paper
	Day2	Revision of chapter-2
	Day3	Class test
	Day4	Assignment of chapter -2
12th	Day1	Revision of previous year question paper
	Day2	Revision of previous year question paper
	Day3	Revision of chapter-3
	Day4	Class test
13th	Day1	Assignment of chapter -3
	Day2	Revision of previous year question paper
	Day3	Application of solar panels
	Day4	Testing of solar panel
14th	Day1	Assignment of chapter -4
	Day2	Revision of previous year question paper
	Day3	Revision of previous year question paper
	Day4	Revision of chapter-4

15th	Day1	Assignment of chapter -5
	Day2	Revision of previous year question paper
	Day3	Revision of previous year question paper
	Day4	Revision of chapter-5
16th	Day1	Practice of old HSBTE Papers
	Day2	Practice of old HSBTE Papers
	Day3	Practice of old HSBTE Papers
	Day4	Practice of old HSBTE Papers