

- Q.25 Write the steps involved during site survey for PV installation.
- Q.26 Explain the Parallel connection of solar panel.
- Q.27 Explain the term panel mounting structure.
- Q.28 Explain the term angle of tilt.
- Q.29 Write a short note on incentives policy in PV installation and maintenance industry.
- Q.30 Explain, how build up the team coordination between colleagues at workplace.
- Q.31 Write a short note on Solar Tracking system
- Q.32 Write the maintenance procedure of solar panel.
- Q.33 Explain the different types of solar panel mounting.
- Q.34 Describe the steps for placement of solar panel mounting on roof.
- Q.35 Write about the emergency procedure during the fire accidents in PV installation area.

SECTION-D

- Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)
- Q.36 Explain the component used and steps involved in solar panel installation.
- Q.37 Explain, in details the operating hazardous tools and equipment used in solar panel manufacturing industry.
- Q.38 Design a solar panel component rating for a house having one 10watt LED used 7 hours, one fan 50 watt used 10 hours, one TV 120 watt used 5 hours, one computer 200 watt used 5 hours. The system will be powered by 24 volt, 330 Wp solar module rating.

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5th Sem / Elect

Subject:- Solar Panel Installation and Maintenance

Time : 3Hrs.

M.M. : 100

SECTION-A

Note: Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 Photovoltaic directly converts _____ into _____.
a) Solar, energy, mechanical energy
b) Solar energy, electricity
c) Heat energy, solar energy
d) Heat energy, pressure
- Q.2 What are the disadvantages of Solar panel?
a) Initial cost is high
b) Dependent on sunlight
c) Large area required
d) All of the above
- Q.3 Fused junction Box is the interface between solar panel and _____.
a) Charge controller b) Inverter
c) Net meter d) None of the above
- Q.4 To keep track of how much electricity of your solar panels produce and how much electricity you use from the grid, a special meter is required is known
a) Energy meter b) Net meter
c) Solar meter d) Any of the above

- Q.5 DC is converted into AC through
- Battery
 - Inverter
 - Charge controller
 - Solar panel
- Q.6 The mounting apparatus which fixes the solar array to the ground or roof is known as
- Rack
 - Inter connector
 - Box
 - Any of the above
- Q.7 Appx. space needed for 1kw solar system is
- 80 sqft
 - 100 sqft
 - 120 sqft
 - 150 sqft
- Q.8 A tool used by electricians to route new wiring through walls and conduit is known as
- Hand tool
 - Angle finder
 - Fish tape
 - Compass
- Q.9 To check the Solar cell temperature, use a tool known as
- Non contact thermometer
 - Digital Multimeter
 - Digital clamp on meter
 - Any of the above
- Q.10 Fall protection tools used for PV installation on rooftop are
- Guardrail system
 - Safety net systems
 - Personal fall arrest system
 - All of the above

SECTION-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

- Q.11 Assemble of interconnected solar cell is known as solar module. (True/False)
- Q.12 Solar panels are used only for electricity generation. (True/False)
- Q.13 In PV direct system storage device is required. (True/False)
- Q.14 Solar charge controller prevents the batteries from overcharge. (True/False)
- Q.15 Write the name of energy storage device.
- Q.16 Write the use of solar pathfinder in installation of PV system
- Q.17 Expand PV.
- Q.18 Solar panel should be covered with an opaque sheet to prevent heat or energy buildup. (True/False)
- Q.19 Solar panel is connected in series to increase the output_____.
- Q.20 Full form of PPE.

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 Write about On-grid Solar power Generation system.
- Q.22 Describe the handling procedure of Solar Panels during Installation.
- Q.23 Write the functions of basic electrical system used in PV installation.
- Q.24 Enlist the tools used in installation of PV system.