

- Q.26 Explain the steps involved during site survey for PV installation.
- Q.27 Explain the series connection of solar panel.
- Q.28 Write a short note on delivery standards in PV installation and maintenance industry.
- Q.29 Explain, the steps to improve team building coordination between colleagues at workplace.
- Q.30 Define solar tracking system and its types.
- Q.31 Write any three point for the maintenance of equipment used in PV installation.
- Q.32 Explain, how maintain the work areas safe and secure during PV installation.
- Q.33 Write any three precaution for handling of solar panel.
- Q.34 Define Energy storage and name the different types of energy storage device for PV system.
- Q.35 Write a short note on placement of solar panel mounting.

Section-D

Note: Long answer questions. Attempt any two question out of three Questions. (2x10=20)

- Q.36 Explain the different component used and complete process involved during solar panel installation.
- Q.37 Design a solar panel component rating for a house having one 10watt LED used 6 hours, one fan 50 watt used 8 hours, one TV 120 watt used 4 hours. The system will be powered by 24 volt, 330WP solar module rating.
- Q.38 Describe, in detail the operating hazardous tools and equipment used during solar Panel Installation.

No. of Printed Pages : 4
Roll No.

180954C/170954C

5th Sem., Branch : Elect Subject : Solar Panel Installation & Maintenance

Time : 3 Hrs.

M.M. : 100

SECTION-A

Note: Multiple type Questions. All Questions are compulsory. (10x1=10)

- Q.1 The photovoltaic device which generate electricity when exposed to sunlight is called
- a) Solar Cell b) Solar light
- c) Solar fan d) Any of the above
- Q.2 An off grid PV system is not connected to _____.
- a) Battery b) Electric grid
- c) Inverter d) Charge controller
- Q.3 What precaution should be carried out during handling of solar panel
- a) Stop working in bad weather condition
- b) Wear insulated gloves
- c) Use cranes or forklift to move solar panel
- d) All of the above
- Q.4 The device which protect the battery from overcharging in PV system is knows as
- a) Solar charge controller
- b) Net meter
- c) AC disconnect switch
- d) DC disconnect switch

- Q.5 The solar pathfinder takes a _____ degree view of the Location of PV installation site
- a) 90 b) 180
c) 360 d) None of the above
- Q.6 The best direction of face solar panel in Northern Hemisphere of India
- a) North b) South
c) East d) West
- Q.7 The angle between horizontal ground and the solar module is known as
- a) Horizontal angle b) Tilt angle
c) Move angle d) Parallel angle
- Q.8 Solar tracking system on the basis of rotation are
- a) Single axis solar tracker
b) Dual axis solar tracker
c) Both A & B
d) None of the above
- Q.9 Personal protective equipment are
- a) Helmet b) Gloves
c) Safety shoes d) All of the above
- Q.10 Example of monetary rewards are
- a) Annual incentive b) Bonus
c) Both A & B d) None of the above

Section-B

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

- Q.11 PV panel consists of one or more PV arrays. (True/False)
- Q.12 Define Battery Bank.
- Q.13 Field junction box is the interface between solar panel and solar charge controller. (True/False)
- Q.14 Write the use of angle finder in installation of PV system.
- Q.15 Solar panel produces DC. (True/False)
- Q.16 Solar cell voltage is measured in _____.
- Q.17 Solar panel is connected in parallel to increase the output _____.
- Q.18 Define the angle of tilt.
- Q.19 Expand the term MPPT.
- Q.20 Write full form of PPE.

Section-C

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

- Q.21 Write about On grid Solar Power Generation System.
- Q.22 Enlist the use of Solar Panel.
- Q.23 Differentiate between Lead acid batteries and Lithium-ion batteries.
- Q.24 Write the functions of Mechanical equipment used in PV installation.
- Q.25 Write the at least five names of tools used in installation of PV system.