

No. of Printed Pages : 4  
Roll No. ....

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- a) PV cells
- b) PV modules
- c) PV panels
- d) None of them

Q.4 Which meter is used to measure the solar irradiance  
(CO2)

- a) Pyranometer
- b) Digital meter
- c) Angle finder
- d) Clamp meter

Q.5 Solar inverter converts  
(CO3)

- a) DC into AC
- b) AC into DC
- c) Both of them
- d) None of them

Q.6 Which among following is not a part of PPE (CO4)

- a) Insulating gloves
- b) Eye protection tool
- c) Anchorage point
- d) Safety jackets

## SECTION-B

**Note:** Objective/ Completion type questions. All questions are compulsory.  
(6x1=6)

Q.7 Define PV Array. (CO1)

Q.8 Expand BOS. (CO2)

Q.9 Define conversion efficiency. (CO1)

Q.10 \_\_\_\_\_ type of battery is commonly used in solar PV systems. (CO2)

## 5th Sem / Electrical

### Subject : Solar Panel Installation and Maintenance

Time : 3 Hrs. M.M. : 60

## SECTION-A

**Note:** Multiple choice questions. All questions are compulsory  
(6x1=6)

Q.1 The primary function of a solar PV cell is to (CO1)

- a) Convert electricity into light
- b) Convert sunlight into electricity
- c) Store energy
- d) Reflect sunlight

Q.2 Which of the following is NOT a component of a PV system. (CO2)

- a) Solar panel
- b) Inverter
- c) Water heater
- d) Battery

Q.3 PV array is made by connecting a number of \_\_\_\_\_  
(CO1)

(1)

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(2)

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- Q.11 Name any two hand tool. (CO3)
- Q.12 Name any two personal protective equipment. (CO4)

### **SECTION-C**

**Note:** Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

- Q.13 List the factors affecting conversion efficiency. (CO1)
- Q.14 Write four function of solar inverter. (CO2)
- Q.15 Write four advantages of PV cell. (CO1)
- Q.16 Write a short note on On-grid solar PV systems. (CO3)
- Q.17 What do you mean by Balance of System? Name the components included in it. (CO2)
- Q.18 Explain parallel connections of PV Module. (CO2)
- Q.19 Define tilt angle and write its significance. (CO1)
- Q.20 List any four safety planning steps. (CO4)
- Q.21 Define solar tracking system. Define its types in brief. (CO3)
- Q.22 List steps for maintenance of solar PV panels. (CO5)

### **SECTION-D**

**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

- Q.23 Present a comparison between off-grid, ongrid and hybrid system. (CO3)
- Q.24 Explain various operating hazardous tools/equipment in brief. (CO5)
- Q.25 Explain various components of solar PV system. (CO2)