

No. of Printed Pages : 4
Roll No.

220954A

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)

220954A

- 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)

(2)

220954A

- 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)