

Q.24 Explain the factors that must be kept in mind while selecting site for solar PV plant. (CO1)

Q.25 Write a short note on:

- a) Marking & Labelling of PV component. (CO4)
- b) Maintenance of Solar System. (CO5)

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**5th Sem / Electrical**

**Subject : Solar Panel Installation & Maintenance**

Time : 3 Hrs.

M.M. : 60

**SECTION-A**

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

- Q.1 The output of the solar Panel is \_\_\_\_\_. (CO3)
- a) AC
  - b) DC
  - c) AC & DC
  - d) None of these
- Q.2 Unit of Electrical Energy is \_\_\_\_\_. (CO1)
- a) Watt
  - b) volt
  - c) Kilowatt Hour
  - d) None of these
- Q.3 Photo Voltaic cell is also known as \_\_\_\_\_. (CO1)
- a) Pencil Cell
  - b) Cadmium cell
  - c) Solar Cell
  - d) None of these
- Q.4 PWM and MPPT are types of \_\_\_\_\_. (CO2)
- a) Battery
  - b) Inverter
  - c) Charger controller
  - d) None of these

Q.5 The tool used to strip insulation from electrical wires is called \_\_\_\_\_. (Co3)

- a) Insulation tester      b) Crimping tool  
c) Wire stripper          d) None of these

Q.6 Which of the following tools is used to check the voltage output of a solar panel. (CO3)

- a) Hygrometer              b) Oscilloscope  
c) Multimeter              d) Thermometer

### SECTION-B

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

Q.7 Solar panels require oiling and lubrication for maintenance. (True/False) (CO5)

Q.8 Define installation tools. (CO5)

Q.9 Expand MPPT. (CO2)

Q.10 A group of PV modules is called \_\_\_\_\_. (CO1)

Q.11 Name any two PPE tools. (CO4)

Q.12 \_\_\_\_\_ component prevents over charging of a battery. (CO2)

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### SECTION-C

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

Q.13 Define PV orientation. (CO1)

Q.14 Explain Hybrid solar system in brief. (CO3)

Q.15 Write four differences between MPPT & PWM charge controller. (CO2)

Q.16 Explain any two protection devices used in Solar PV system. (CO2)

Q.17 Define conversion efficiency. (CO1)

Q.18 Write any four functions of Solar Inverters. (CO3)

Q.19 Write series connections of PV modules. (CO3)

Q.20 Explain clamp meter & its uses. (CO3)

Q.21 Define hazardous tools and name its types. (CO4)

Q.22 Write any four steps of battery maintenance. (CO5)

### SECTION-D

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

Q.23 Explain PV mounting structure and its types. (CO2)

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