

Roll no.

ID: 220924

2nd Semester/ Branch: Electrical

Subject Name: Non Conventional Sources of Energy

Time Allowed: 3 Hrs.

MM: 60

Section -A

Note: Multiple Choice questions. All questions are compulsory.

$$6 \times 1 = 6$$

- Q.1 Photovoltaic energy is the conversion of sunlight into:

(a) Geothermal energy (b) Electricity
(c) Biogas (d) Chemical energy

Q.2 By _____ the ocean thermal energy conversion (OTEC) is produced.

(a) Energy difference (b) Potential difference
(c) Kinetic difference (d) None of these

Q.3 Which of the following converts energy from the combustion of fuel directly into electrical energy?

(a) Ni-Cd cell (b) Dynamo
(c) Fuel cell (d) Electrolytic cell

Q.4 What is the diameter of wind turbine blades?

(a) 320 feet (b) 220 feet
(c) 80 feet (d) 500 feet

Q.5 How much energy does sun release in the form of radiation?

(a) 3.8×10^{26} joule / second (b) 3.8×10^{24} joule
(c) 1.7×10^{26} joule / second (d) 1.7×10^{17} joule

Q.6 Which of the following generation station has minimum running cost?

(a) Thermal power station (b) Hydro-electric power station
(c) nuclear power station (d) None of these

Section-B

Note: Objective/Completion type questions. All questions are compulsory.

$$6 \times 1 = 6$$

- Q.7 Give one Example of conventional energy sources.

Q.8 Full form of MNFE.

Q.9 Full form of PV cell.

Q.10 Full form of OTEC.

Q.11 Full form of MHD.

Q.12 Function of Turbine in Hydro electric power plant.

Section -C

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

- Q.13 What is the present scenario of renewable energy sources in India?
 - Q.14 Write the applications of Solar energy.
 - Q.15 Discuss about Solar lighting.
 - Q.16 Discuss environmental and social impacts of hydro power plant.
 - Q.17 What is the Selection criteria of wind energy power plant?
 - Q.18 What are the prospects of geothermal energy in India?
 - Q.19 Discuss MHD principle with diagram.
 - Q.20 Explain fuel cells.
 - Q.21 Discuss Super capacitor.
 - Q.22 Discuss Flywheel storage.

Section-D

Note: Long answer questions. Attempt any two questions out of three questions.

$$2 \times 8 = 16$$

- Q.23 Explain in detail Bio Mass power plant.
Q.24 Explain in detail Tidal power plant.
Q.25 Explain in detail Hydro electric power plant.