

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.

6x1=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 to the 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 / second
(c) 1.7×10^{26} joule / second (d) 1.7×10^{17} joule / second
- 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.

6x1=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.

2x8=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.