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2nd Sem / Branch : Electrical
Sub.: Non Conventional Sources of Energy

Time : 3Hrs. M.M. : 60

SECTION-A

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

Q.1 Hydroelectric power plant is mainly located in _____.

a) Flat areas b) Deserts
c) Hilly areas d) Deltas

Q.2 Which of these materials are not used for MHD duct walls?

a) Magnesium oxide b) Strontium zirconate
c) Hafnia d) Manganese zirconate

Q.3 Which of these is not a property of MHD power generation?

a) Has no moving part, so is reliable
b) Overall generation cost is less
c) Closed cycle has almost no pollution
d) Conversion is about 80-90%

Q.4 OTEC efficiency is?

a) 3% b) 5%
c) 25% d) 50%

Q.5 The Zenith Angle complement is _____.

a) Surface Azimuth Angle
b) Slope
c) Solar Altitude angle
d) Solar Azimuth Angle

Q.6 In which collector the efficiency is maximum _____

a) Flat Plate b) Line Focusing
c) Evacuated Tube d) Paraboloid Dish

SECTION-B

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

Q.7 Lowest efficiency in NCES is of _____.

Q.8 Short circuit current means in solar cells.

Q.9 Function of generator in hydro power plant is_____.

Q.10 MHD full form is.

Q.11 Fuel cell converts.

Q.12 PV cell is made of which material_____.

SECTION-C

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

Q.13 Discuss Solar cooker.

Q.14 Explain solar cell materials.

Q.15 Explain need of renewable energy sources.

Q.16 Explain solar water pumps.

Q.17 Explain Mini hydro power plant.

Q.18 Discuss types of biogas plants.

Q.19 Discuss environmental aspects of geothermal energy.

Q.20 Discuss OTEC.

Q.21 Discuss materials for MHD generators and its future prospectus.

Q.22 Discuss need of energy storage system.

SECTION-D

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

Q.23 Explain in detail open and closed cycle MHD system.

Q.24 Explain in detail tidal power plants.

Q.25 Explain in detail photosynthesis and biomass process.