

No. of Printed Pages : 4

Roll No.

180932

3rd Sem / Electrical Engg

Subject:- Non-Conventional Sources of Energy

Time : 3Hrs.

M.M. : 100

SECTION-A

Note: Multiple choice questions. All questions are compulsory (10x1=10)

Q.1 The function of solar collector is (CO2)

- a) to generate electricity
- b) to collect and stores sunlight
- c) to collect and concentrate sunlight
- d) to filter sunlight

Q.2 In a ocean energy which of the following chemical act as a fluid? (CO4)

- a) ammonia
- b) mercury
- c) transformer oil
- d) water

Q.3 Penstock is (CO4)
a) Pipeline
b) Wall
c) Turbine
d) Tank

Q.4 Biogas is also known as (CO3)
a) CNG
b) LPG
c) Steam
d) None of these

Q.5 Earth outer layer of rock is called.....? (CO5)

- a) Mantle
- b) Crust
- c) Outer core
- d) None of these

Q.6 Which is not a renewable energy source? (CO1)

- a) Hydro Power
- b) Tidal Power
- c) Solar power
- d) Nuclear power

Q.7 The nature of current developed in MHD generator is (CO5)

- a) AC
- b) DC
- c) Both
- d) None of these

Q.8 Geo thermal energy is the thermal energy present..... (CO4)

- a) On the surface of the earth
- b) In the interior of earth
- c) on the surface of ocean
- d) None of the above

Q.9 The single solar cell voltage is about..... (CO2)

- a) 0.2 V
- b) 0.5 V
- c) 1.0 V
- d) 2.0 V

Q.10 Biomass can be converted to..... (CO4)

- a) Methane Gas
- b) Ethanol
- c) Biodiesel
- d) All of the above

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SECTION-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

- Q.11 Define Photovoltaic cell. (CO1)
Q.12 What is Geo thermal Energy. (CO4)
Q.13 Renewable source of energy is _____. (CO1)
Q.14 What is bio energy . (CO2)
Q.15 Define green house effect. (CO3)
Q.16 What is the basic principle of MHD. (CO5)
Q.17 Write two advantages of tidal Power. (CO4)
Q.18 Define Solar energy. (CO1)
Q.19 Write the formula of biomass. (CO4)
Q.20 Define the conversion efficiency of fuel cell. (CO5)

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 Discuss the importance of Non Conventional Energy Sources. (CO1)
Q.22 Discuss the principal of conversion of Solar radiation into heat. (CO2)
Q.23 Write the applications of Solar energy. (CO2)
Q.24 How to generate electricity by using gasifiers. (CO3)
Q.25 Explain the methods for obtaining energy from Biomass. (CO4)
Q.26 What is windmills ? Explain its type in brief. (CO4)
Q.27 Explain Ocean thermal electric Conversion. (CO4)

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- Q.28 How Electricity is generated from tidal energy. (CO4)
Q.29 Explain the Magneto hydro dynamic Power generation. (CO5)
Q.30 Discuss the operating principle of fuel cells. (CO5)
Q.31 Explain the Primary Sources of Energy. (CO1)
Q.32 Explain the power generation by Geo Thermal Energy. (CO4)
Q.33 Discuss the Biomass Energy Conversion technologies. (CO4)
Q.34 Explain the working of Micro Hydro Plants. (CO5)
Q.35 What are the applications of Fuel cells. (CO5)

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

- Q.36 Explain the design and operating principle of fuel cell. Also write its advantages and disadvantages (CO5)
Q.37 Discuss the methods of power generation by Bioenergy and Wind energy. (CO4)
Q.38 Discuss the present energy scenario and future prospects in India. (CO1)

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