No. of Printed Pages : 4
Roll No. .....

180932

3rd Sem / Branch : Elect Engg
Subject:- Non Conventional Energy Sources

Time : 3Hrs. M.M. : 100

SECTION-A

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

Q.1 Which is not a renewable energy source? (Co1)
a) Hydro power b) Tidal power
c) Solar power d) Nuclear power

Q.2 Complete combustion of biomass to ashes is called_____? (CO3)
a) Pyrolysis b) Incineration
c) Fermentation d) None of these

Q.3 Which of the following power plant has highest share of capacity? (CO1)
a) Hydro plant b) Coal plant
c) Nuclear plant d) Gas plant

Q.4 Which turbine rotates parallel to direction of wind? (CO4)
a) HAWT b) VAWT
c) Both d) None of these

Q.5 Geothermal energy is present in_____? (CO5)
a) Inside the earth
b) On the surface of ocean
c) On the surface of the earth
d) None of these

Q.6 Earth outer layer of rock is called_____? (CO5)
a) Mantle b) Crust
c) Outer core d) None of these

Q.7 What is the working fluid used in close cycle MHD system_____? (CO6)
a) Helium & Argon b) Coal
c) Outer core d) none of these

Q.8 Energy sources which are being used from many decades are known as_____? (CO1)
a) Conventional energy sources
b) Non conventional energy sources
c) Both
d) None of these

Q.9 Bio gas is also known as_____ (CO3)
a) CNG b) LPG
c) Steam d) None

Q.10 World energy consumption needs are rising due to_____ (CO1)
a) Deforestation
b) Increasing population
c) Inflation
d) None

SECTION-B

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

Q.11 Black surface of solar cell absorbs less radiation? T/F (CO2)

Q.12 Solar cells are the_____devices. (CO2)

Q.13 Biomass is a renewable energy sources? T/F (CO3)

Q.14 Define the term wind. (CO4)

Q.15 Tidal energy is due to gravitational forces of _____&_____. (CO5)
Q.16 WECS stands for _____ (CO4)
Q.17 Write one difference between battery & fuel cell. (CO7)
Q.18 Write full form of HAWT_____. (CO4)
Q.19 State primary energy source. (CO1)
Q.20 Practical efficiency of fuel cell is _____. (CO7)

SECTION-C

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

Q.21 What are commercial & non commercial energy sources? (CO1)
Q.22 Analyze advantages of conventional energy over non conventional energy. (CO1)
Q.23 Explain the construction & working of a solar cell. (CO2)
Q.24 Describe the working of fixed dome type biogas plant. (CO3)
Q.25 Write the various applications of bio gas. (CO3)
Q.26 Draw and explain the basic components of wind energy conversion system. (CO4)
Q.27 State & Explain OFF-Grid wind turbine system. (CO4)
Q.28 Explain hot dry rock (HDR) Geo thermal system. (CO5)
Q.29 Describe Binary cycle Geo thermal power point. (CO5)

Q.30 Summarize open cycle MHD power generation system. (CO6)
Q.31 Classified types of small hydro power plants & write components of a hydro electric system. (CO8)
Q.32 Explain the construction & working of impulse turbine. (CO8)
Q.33 Compare HAWT & VAWT (CO4)
Q.34 Write a short note on construction & working of fuel cell. (CO7)
Q.35 Explain power generation by using Gassifier. (CO3)

SECTION-D

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

Q.36 Write short note on (CO2)
1. Solar PV Module & PV Array
2. Solar Lantern

Q.37 Classified different methods of Geo thermal energy extraction. (CO5)
Q.38 Define solar energy & explain the principle of conversion of solar radiation in the heat with neat sketch. (CO2)