

- Q25 What are the advantages of power factor improvements. (CO3)

Q.26 What do you mean by energy conservation? Why it is required and how it can be done. (CO3)

Q.27 What is the need of energy efficient devices. (CO3)

Q.28 Compares the fuel cell with the battery. Mention advantages of fuel cell? (CO1)

Q.29 What are the important characteristics of fuel cell. How they differ from conventional cell. (CO4)

Q.30 Writes a short note on detailed energy Audit. (CO3)

Q.31 Explain in brief energy Audit procedure. (CO3)

Q.32 How we can store wind energy? (CO2)

Q.33 Describe the prospects of non-conventional energy resources. (CO1)

Q.34 What is Gaisfier? Write down its applications. (CO2)

Q.35 Describe the limitation of non-conventional resources of energy. (CO1)

Section-D

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

- Q.36 Explain worked principle construction and application of fuel cell. (CO4)

Q.37 Explain with neat diagram a wind energy conversion system. (CO2)

Q.38 Describe the photo voltaic cell with neat diagram. (CO2)

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4th Sem.

**Branc : IC, Elect, Power Station Engg., Elect & Eltx. Engg.
Subject : Principles of Energy Management/Energy Sources
& Mgmt of Elect. Energy**

Time : 3 Hrs.

M.M. : 100

SECTION-A

Note: Multiple type Questions. All Questions are compulsory. (10x1=10)

- Q.1 OTEC system is also called- (CO2)

 - a) Anaderson cycle system
 - b) Open cycle system
 - c) Claude cycle system
 - d) None

Q.2 The output of MHD is - (CO2)

 - a) AC
 - b) DC
 - c) Both AC & DC
 - d) None

Q.3 Primary source of Energy (CO1)

 - a) Wood
 - b) Wind
 - c) Lakes
 - d) All of these

Q.4 Which turbine rotates parallel to the direction of wind- (CO2)

 - a) HAWT
 - b) VAWT
 - c) Darrieus
 - d) None of these

- Q.5 Complete combustion of biomass to ashes is called (CO2)
- a) Pyrolysis b) Incineration
 - c) Fermentation d) None of these
- Q.6 Earth outer layer of rocks is called- (CO1)
- a) Mantle b) Crust
 - c) Outer core d) None of these
- Q.7 Which of the following is ultimate source of energy (CO1)
- a) Water b) Sun
 - c) Uranium d) None of these
- Q.8 On which principle wind mill works- (CO2)
- a) Electromagnetic Induction
 - b) Momentum
 - c) Both A & B
 - d) None of these
- Q.9 What is the output of H_2O_2 fuel cell in volt? (CO4)
- a) -1.23 b) -1.45
 - c) -1.01 d) -0.93
- Q.10 Different types of tariff. (CO3)
- a) Flat rate tariff b) Step rate tariff
 - c) Block rate tariff d) All of the above

Section-B

- Note:** Objective type questions. All questions are compulsory. (10x1=10)
- Q.11 Practical energy of fuel cell is _____ (CO4)
- Q.12 Define about bio-gas? (CO2)
- Q.13 What is secondary energy. (CO1)
- Q.14 What is the full form of MHD? (CO2)
- Q.15 What is OTEC? (CO2)
- Q.16 Wind energy is renewable energy sources (True/False) (CO1)
- Q.17 What is SI unit of energy. (CO1)
- Q.18 Write the full form of MPPT? (CO2)
- Q.19 What do you understand by the term domestic sector. (CO3)
- Q.20 Full form of ECBC is _____. (CO3)

Section-C

- Note:** Short answer type Question. Attempt any twelve questions out of fifteen Questions. (12x5=60)
- Q.21 Discuss about various conventional resources of energy. (CO1)
- Q.22 Explain the working of solar water heater. (CO2)
- Q.23 Explain the working of a solar cell. (CO2)
- Q.24 Discuss the principle of MHD generation. (CO2)