

- Q.26 Explain the types of tariff structure for electricity.(CO-4)
- Q.27 Compare renewable energy and non-renewable energy. (CO-2)
- Q.28 Explain internal audit checklist with an example. (CO-6)
- Q.29 Explain MHD convertor. (CO-2)
- Q.30 Explain the principle of obtaining electricity from solar energy. (CO-3)
- Q.31 Write the advantages of renewable energy sources. (CO-2)
- Q.32 How energy is conserved by improving load factor. (CO-4)
- Q.33 Write a short note on present energy scenario in India in domestic sector.
- Q.34 Explain different energy storage methods. (CO-5)
- Q.35 Explain working principle of fuel cell. (CO-3)

SECTION-D

- Note:** Long Answer type question. Attempt any two questions. (2x10=20)
- Q.36 Explain energy efficient technologies in domestic and industrial sectors with two examples from each sector. (CO-1)
- Q.37 Discuss the ten step methodology for detailed energy audit. (CO-6)
- Q.38 Write short note on:
- Maximum power point tracking. (CO-3)
 - Biomass energy. (CO-2)

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Roll No.....

4th Sem / Instrumentation & Control Subject : Principle of Energy Management/ Energy Sources & Mgmt. Of Elect. Energy

Time : 3 Hrs.

M.M. : 100

SECTION-A

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

- Q.1 Energy management is a key component of (CO-4)
- Water management
 - Nitrogen management
 - Carbon management
 - None of these
- Q.2 A Solar photovoltaic system converts light energy into _____. (CO-3)
- Heat energy
 - Electrical energy
 - Thermal energy
 - Sound energy
- Q.3 The main objective of energy management is to _____ (CO-4)
- Minimum environmental effects
 - Minimize energy cost
 - Maintain optimum energy procurement & utilization
 - All of these
- Q.4 A wind turbine designed to come into operation at a minimum wind speed which is called _____. (CO-2)
- Cut in velocity
 - Cut out velocity
 - Upwind location
 - None of these

- Q.5 If power factor is less than unity then it will result in (CO-4)
- More copper losses
 - Large kVA rating of equipment
 - Greater conductor size
 - All of these
- Q.6 The disadvantage(s) of renewable energy sources is/are (CO-2)
- Availability in low energy densities
 - Lack of dependability
 - Intermittency
 - All of the above
- Q.7 The capacity of a battery is expressed in terms of (CO-5)
- Current rating
 - Ampere hour rating
 - Voltage rating
 - None of these
- Q.8 The various instrument required during audit need to be (CO-6)
- Easy to operate
 - Easy to carry
 - Inexpensive
 - All of above
- Q.9 Cells are connected in parallel to (CO-5)
- Increase the efficiency
 - Increase the voltage output
 - Increase the current capacity
 - None of these
- Q.10 The standard emf is _____ for hydrogen-oxygen fuel cells. (CO-2)
- 3.96V
 - 0.58V
 - 1.23V
 - 2.54V

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SECTION-B

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

- Q.11 The nature of the current developed in MHD generator is AC. (True/False) (CO-2)
- Q.12 OTEC stands for _____ factor. (CO-2)
- Q.13 Capacitors banks are used to _____ (increase / decrease) the value of power factor. (CO-4)
- Q.14 The maximum value of power factor is _____. (CO-4)
- Q.15 Chemical energy is converted to _____ energy by a fuel cell. (CO-2)
- Q.16 Primary energy sources are those that are either found or stored in nature. (True/False) (CO-2)
- Q.17 Biomass is a renewable energy source. (CO-2)
- Q.18 MHD stands for _____. (CO-2)
- Q.19 Energy conservation act was formed in the year _____. (CO-4)
- Q.20 Cells are connected in _____ (Series/ parallel) to increase the current capacity. (CO-3)

SECTION-C

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

- Q.21 Define energy conservation. Also write its importance.
- Q.22 Explain need of energy storage. (CO-5)
- Q.23 Explain the principle of ocean thermal energy conversion system. (CO-2)
- Q.24 Write a short note on tidal energy. (CO-2)
- Q.25 What is need of energy audit? (CO-2)

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