No. of Printed Pages : 4 120965A/030965A
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6th Sem / Branch : Elect. Power Station Engg.
Sub. : Energy Management

Time : 3Hrs. M.M. : 100

SECTION-A

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

Q.1 The objective of energy management is _____.
a) Minimizing energy costs
b) Maximizing waste
c) Increasing environmental degradation
d) All of the above

Q.2 All lamps are rated in _____.
a) Volts b) Watts
c) Ampere d) Both A & B

Q.3 What is the full form of LLCA_____.
a) Life cycle cost analysis
b) Long cycle cost analysis
c) Life cycle costing agreement
d) Long cycle costing agreement

Q.4 Magnetic core losses arises due to
a) Eddy currents b) Hysteresis losses
c) Magnetic saturation d) All of these

Q.5 CFL stands for _____
a) Campact fluorescent lamp
b) Constantan filament lamp

c) Closed filament lamp
d) Closed fluorescent lamp

Q.6 ISI stands for _____
a) Indian standards institution
b) Indian standards integration
c) International standards institution
d) International standards integration

Q.7 Wind turbine converts wised power into_____.
a) Potential energy b) Wind energy
c) Electrical energy d) Mechanical energy

Q.8 Energy audit instrument used for power measurement is _____
a) Luxmeter b) Voltmeter
c) Power analyzer d) None of the above

Q.9 The transfer of energy from one form to another is called law of _____
a) Expansion b) Conversion
c) Conservation d) None of the above

Q.10 EIA stands for _____
a) Environmental impact Assessment
b) Energy impact association
c) Efficient impulse Assessment
d) None of these

SECTION-B

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

Q.11 LED lamps use _____energy than a CFL.

Q.12 The macro level approach for energy conservation is to _____ specific energy consumption.

Q.13 Static capacitors are used to _____.
Q.14 Ozone is formed by combination of _____ oxygen atoms.
Q.15 The process of identifying and documenting all the costs involved over the life of an asset is knows as _____ costs.
Q.16 How many steps we follow in Energy Audit methodology_____.
Q.17 Define the term energy efficiency.
Q.18 Name core value of EIA.
Q.19 Give two applications of solar energy?
Q.20 The efficiency of energy conversion processes is less than one. (True/False)

SECTION-C

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

Q.21 What are Renewable Energy Source? Name different types of these sources.
Q.22 What is the significance of energy efficiency.
Q.23 Explain the different areas of energy conservation in agriculture sector.
Q.24 Write a short note on energy efficient lighting sources and their benefits.
Q.25 what do you stand by energy sources? Explain any one.
Q.26 Which aspect we have to consider while designing energy efficient motor?
Q.27 Write short note on CFL.

Q.28 What is power factor? How we can correct power factor?
Q.29 What do you mean by energy audit?
Q.30 List the steps to reduce the losses in power distribution.
Q.31 Explain the EIA process with the help of a flowchart.
Q.32 Describe the efficiency of an energy conversion process in words and with an equation.
Q.33 What is LED? Mentions its advantages and disadvantages.
Q.34 How can we save energy by fine tuning of equipment?
Q.35 What do you mean by Environmental Impact Assessment? What is the need?

SECTION-D

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

Q.36 Explain in detail the three-pronged approach of energy management.
Q.37 Write in details about the important instruments used in conducting energy audit in an industrial establishment with their applications.
Q.38 a) List at least five energy saving tips in Computers.
b) Explain the duties of energy auditor and energy manager