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6th Sem / Branch : Electrical Engg.
Sub.: Electrical Energy Conservation & Management

Time : 3Hrs. M.M. : 100

SECTION-A

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

Q.1 The unit of lux is _____

- a) 1000 lumens per square feet
- b) 10 lumens per square meter
- c) One lumen per square meter
- d) One lumen per square feet

Q.2 Pure resistive load in an alternating current (AC) circuit draws only.

- a) Lagging reactive power
- b) Active power
- c) Leading reactive power
- d) Active apparent power

Q.3 The transformer capacity is rated in terms of

- a) KW b) KVA
- c) KVAr d) HP

Q.4 The various types of the instruments, which requires during audit need to be

- a) Easy to Carry b) Easy to operate
- c) Inexpensive d) All of the above

(1)

180961/170961

Q.5 The unit of Solid angle is

- a) Solid angle b) Radian
- c) Candela d) Steradian

Q.6 _____ has initiated various promotional provisions in support of energy conservation Act.

- a) BEE
- b) ECBD
- c) Designated consumers
- d) Standard & Labelling

Q.7 BEE is established on _____

- a) 1st March 2001 b) 1st March, 2002
- c) 1st March, 2005 d) 1st March, 2018

Q.8 Detailed audit is also called _____

- a) General Audit b) Screening audit
- c) Side energy audit d) Both A & B

Q.9 The performance of distribution transformer is judged by it's _____

- a) Commercial efficiency
- b) All day efficiency
- c) Distribution efficiency
- d) None of the above

Q.10 What is the voltage output of H₂O₂ Fuel cell in volt?

- a) -1.23 b) -1.45
- c) -0.93 d) -1.01

(2)

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SECTION-B

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

Q.11 NSPH stands for _____

Q.12 BEE stands for _____

Q.13 IN star rating _____ point scale is used (Five/Seven)

Q.14 What do you mean by candle power?

Q.15 What is skylight?

Q.16 What is mini audit?

Q.17 What is sliding scale tariff?

Q.18 Major part of electric load in any industry consist of _____ (Electric Motor/ Transformer)

Q.19 What do you understand by the term domestic sector?

Q.20 What is the full form of MMC in tariff structure?

SECTION-C

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

Q.21 Explain the effects of low power factor.

Q.22 What are the general energy saving tips in computers?

Q.23 What is Energy Efficient motor? What is the need of energy efficient motor?

Q.24 Write any five difference between standard efficiency motor and Energy Efficiency motor?

Q.25 Write short notes on LED.

Q.26 State and explain the law of illumination.

(3)

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Q.27 Explain about electric energy conservation.

Q.28 Explain any five function of BEE.

Q.29 What are the base line data that an audit team should collect while conducting detailed energy audit?

Q.30 What are the objectives of ECBC?

Q.31 Define star labelling and write any four benefits of star labelling.

Q.32 What are the general energy saving tips in lightning system? Write any five.

Q.33 What benefits involved for ECBC?

Q.34 What is the importance of leakage test in compressed air system?

Q.35 What is CFL? State their advantages and disadvantages.

SECTION-D

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

Q.36 What is tariff? Explain different types of tariff in details.

Q.37 Discuss the various type of losses that occurs in standard motors. How you can reduce these losses using energy efficient motors.

Q.38 What is need of energy efficiency in lighting system? What are the main source of energy efficient lighting?

(1720)

(4)

180961/170961