

B.E DEGREE EXAMINATIONS: MAY/JUNE 2013

Eighth Semester

ELECTRICAL & ELECTRONICS ENGINEERING

EEE343:Electrical Safety And Energy Management

Time: Three Hours

Maximum Marks: 100

**Answer all the Questions:-
PART A (10 x 1 = 10 Marks)**

1. Vertical clearance between phase to roof for LT line passes above the building
 - a) 215mm
 - b) 2.5cm
 - c) 2.5m
 - d) 1m
2. Sag depends on the following
 - a) Length of the span
 - b) Weight of the conductor
 - c) Horizontal tension in the conductor
 - d) All
3. Short circuit protection is used in power system
 - a) Fuse
 - b) Breaker
 - c) Relay
 - d) All
4. Equipment earthing ensure
 - a) Safety against electrical shock
 - b) Safety against flash over
 - c) Current measurement
 - d) All the above
5. Artificial respiration helps
 - a) To restore the normal breathing
 - b) To prevent death
 - c) Both a & b
 - d) To restore normal blood flow
6. Special tools are used for
 - a) Live line maintenance
 - b) Without live line maintenance
 - c) Both a & B
 - d) None of the above
7. Soda acid type water extinguisher are used to put of the fire in
 - a) oil
 - b) gas
 - c) wood
 - d) paint
8. The function of fire detector and alarm system include
 - a) To detect smoke
 - b) To detect fire
 - c) To make alarm
 - d) all
9. Energy audit which helps
 - a) To improve the efficiency of energy use
 - b) Measurement of all energy flows
 - c) To find out the wastage of energy
 - d) All
10. One unit of electricity saved is equal to _____ units of electricity generated
 - a) 1
 - b) 2

c) 3 to 4

d) 5

PART B (10 x 2 = 20 Marks)

11. What is the objective of IE act & rules?
12. What are the aspects covered under electrical safety?
13. What is meant by work permit system?
14. What is the safety adapted for domestic appliances?
15. What are the elements for good training programme?
16. What is meant by maintenance schedule?
17. What are the different media used to extinguish the fire?
18. What are steps to be taken for prevention of fire?
19. Define the term Energy Management.
20. What are the various principles involved in energy conservation

PART C (5 x 14 = 70 Marks)

- 21 a) Explain the hazards of electricity
(OR)
b) Explain the significance of IE rules and IE acts
22. a) Explain the SC protection employed in power system
(OR)
b) Draw with neat sketch and explain the electrical layout for 230KV/110KV substation
23. a) Describe steps to be taken during and after electric shock to save person's life?
(OR)
b) Explain the safety aspects during commissioning.
24. a) Explain with neat sketch for fire detection and alarm circuits.
(OR)
b) (i) Explain the different classifications of fires.
(ii) Explain with neat sketch the working principle for foam type & DC type fire extinguisher.
25. a) Explain the energy auditing procedure.
(OR)
b) Explain the various source of renewable energy
