465

Register No.:

October 2018

Time – Three hours
(Maximum Marks: 75)

[N.B: (1) Q.No. 8 in PART – A and Q.No. 16 in PART – B are compulsory. Answer any FOUR questions from the remaining in each PART – A and PART – B

(2) Answer division (a) or division (b) of each question in PART – C.

(3) Each question carries 2 marks in PART – A, 3 marks in Part – B and 10 marks in PART – C.

(4) Estimation tables are permitted]

PART – A

1. Draw any two symbols used for wiring items.
2. What is diversity factor for sub circuit?
3. List out energy auditing instruments?
4. What is meant by electricity billing?
5. What are the losses occurs in induction motor?
6. Write about electronic ballast.
7. What is maximum demand controller?
8. State any two differences between earth wire and neutral wire.

PART – B

9. Explain joint box system.
10. Describe about treatment for electric shock.
11. Write short notes on selection of wire in electrical installation.
12. What are the types of energy auditing?
13. Explain bench marking.
14. List the different types of lighting sources.
15. Explain about occupancy sensor.
16. For a load current of 7A, select the size of copper conductor and main switch, if supply voltage is 230V.

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PART – C

17. (a) What is service connection and explain how overhead service connection is given to the consumer.

(Or)

(b) Explain plate earthing and list the material required.

18. (a) Estimate the material required to erect a 15HP induction motor in a work shop.

(Or)

(b) In a street, 12 tubular lamp post of height 7 meters are to be erected with a span of 30 meters. Each lamp post is to be fitted with one 4 feet tube light with outdoor type fittings. Estimate the quantity of materials required for the installation by assuming suitable data.

19. (a) Explain in detail about energy management audit approach.

(Or)

(b) What is meant by power factor improvement? State its benefits.

20. (a) Explain in detail the factors affecting the performance of induction motor.

(Or)

(b) Explain briefly about the energy conservation avenues available in lighting system.

21. (a) Explain the factors affecting the selection of diesel generating system in detail.

(Or)

(b) Briefly explain about energy efficient transformers.