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BIEE-036

DIPLOMA IN ELECTRICAL ENGINEERING (DELVI)

Term-End Examination

June, 2017

00624

BIEE-036 : ELECTRICAL INSTALLATION AND SYSTEMS

Time : 2 hours *Maximum Marks : 70*

Note : *Attempt any **five** questions. All questions carry equal marks. Use of scientific calculator is allowed.*

1. With the help of suitable examples, explain in detail : *7+7=14*

(a) Electrical Point Method

(b) Fixed Percentage Method

2. (a) Compare briefly different types of wiring schemes on the basis of applications areas. 7

(b) What do you understand by "conduit wiring scheme" and where can it be used ? 7

3. (a) Compare the overhead and underground connection on the basis of industrial applications. 7

(b) An industry has a distance of 50 m from the service pole and its load demand is 100 kW. Which service connection will be preferable for this industry and why ? 7

4. A factory has a maximum load of 240 kW at 0·8 p.f. lagging with an annual consumption of 50,000 units. The tariff is ₹ 50 per kVA of maximum demand plus 10 paise per unit. Calculate the *7+7=14*

(a) flat rate of energy consumption.

(b) annual saving if p.f. is raised to unity.

5. (a) Classify substations schemes and explain one of them in detail. 7

(b) Explain the various factors affecting the planning of a short transmission line based on unit cost calculations. 7

6. (a) Explain how a 2-wire DC distribution with concentrated loads fed at the end can be represented by a single line diagram. 7

(b) What is ELCB ? What does it perform ? 7

7. (a) What is casing-capping wiring scheme ? Where can it be used ? 7

(b) What are the various constituents of an overhead line ? 7

8. Write short notes on any ***two*** of the following : *2×7=14*

(a) IE Rules and IS Standard Practices

(b) Earnest Money and Security Deposits

(c) Installation of Air Conditioners