

Roll No.

Total Pages : 02

BT-7/M-20

37196

UTILIZATION OF ELECTRICAL ENERGY

EE-401N

Opt. II

Time : Three Hours]

[Maximum Marks : 75

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit.

Unit I

1. (a) Define illumination and describe Laws of illumination. **8**
- (b) Explain various methods adopted for lightening calculation. **7**
2. Explain in detail the constructional features and working of sodium vapor lamp with suitable diagram. **15**

Unit II

3. Write short notes on the following :
 - (a) Advantage of electric heating **5**
 - (b) Degree of heating element **5**
 - (c) Equivalent circuit of Arc Furnace. **5**

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4. (a) Compare between AC and DC welding. **10**
(b) Explain advantage of coated electrodes. **5**

Unit III

5. Explain in brief the working and concept behind refrigerator with suitable diagram. **15**
6. (a) What is Electroplating ? Give basic principle behind electroplating and various terms used. **8**
(b) Explain in brief various compression cycles. **7**

Unit IV

7. Write short notes on the following :
(a) Starting of electric train **5**
(b) Speed control of electric train **5**
(c) Braking of electric train. **5**
8. (a) Compare and contrast amongst AC and DC traction system. **8**
(b) Draw and explain block diagram of electric traction system. **7**