

**B.E / B.TECH DEGREE END SEMESTER EXAMINATIONS, OCT/NOV 2012**  
**ELECTRICAL AND ELECTRONICS ENGINEERING BRANCH**  
**SEVENTH SEMESTER**  
**EE 9402 UTILISATION AND CONSERVATION OF ELECTRICAL ENERGY**  
**Time: 3 hrs (Regulation 2008) Max Marks: 100**  
**Answer ALL Questions**

Part – A

(10x2=20)

1. How is the choice of welding time made?
2. What are the methods of Electric Braking?
3. What is coefficient of utilization?
4. Define Luminance.
5. What are the assumptions made to simplify the calculation of temperature raise?
6. Why is Energy Auditing important?
7. In a refrigerator, if the motor keeps running but cooling is insufficient then, what is the cause and remedy?
8. What are the advantages in maintaining air conditioning of the space in offices and factories?
9. When was the first electrification carried out in India?
10. What are the modes of Heat transfer?

Part-B

(5x 16=80)

- 11.(i) What are the various factors governing the choice of electric drive for various application? (8)
- (ii) What are the characteristics features of traction motor? (8)
12. a.(i) A Filament lamp of 500W is suspended at a height of 5 metres above working plane and gives uniform illumination over an area of 8m diameter. Assume efficiency of reflector as 60%. Determine the illumination on the working plane. Efficiency of lamp is 0.9 watt per candle power. (8)
- (ii) What are the different types of lamps used? Explain each of them, stating their merits and demerits. (8)

(OR)