

Roll No.

Total No. of Questions : 09]

[Total No. of Pages : 02

B.Tech. (Sem. - 6th)

ELECTRIC DRIVES AND UTILIZATION

SUBJECT CODE : EE - 304

Paper ID : [A0420]

[Note : Please fill subject code and paper ID on OMR]

Time : 03 Hours

Maximum Marks : 60

Instruction to Candidates:

- 1) Section - A is **Compulsory**.
- 2) Attempt any **Four** questions from Section - B.
- 3) Attempt any **Two** questions from Section - C.

Section - A

Q1)

(10 × 2 = 20)

- a) What is intermediate catenary?
- b) What are the fluxes used in the arc welding?
- c) What is luminance?
- d) Differentiate between illumination & luminous intensity?
- e) What is electrolysis?
- f) What are the desirable properties of refrigerants?
- g) What is meant by "rating of motor"?
- h) What are the applications of induction drives?
- i) Draw the neat sketch of refrigeration cycle?
- j) What happen when an electric current is passed through solution of copper sulphate?

Section - B

(4 × 5 = 20)

Q2) Discuss various methods of electric heating in detail?

Q3) Explain the basic difference between "Electric arc welding" & "Resistance welding"?

Q4) Discuss various types of traction systems?

Q5) State Faraday's law of electrolysis? Explain them in details.

Q6) Draw and explain the starting characteristics of various electric motors?

Section - C

(2 × 10 = 20)

Q7) What are the various applications of electrolysis? Explain extraction of metals (take example of any metal).

Q8) Discuss in details :

(a) Vapours compression refrigeration system.

(b) Vapours absorption refrigeration system.

(c) Thermo electric refrigeration system.

Q9) Write short note on :

(a) Flood lighting.

(b) Laws of illumination.
