

BACHELOR OF TECHNOLOGY (C.B.C.S.) (2014 COURSE)
B.Tech.Sem - VII ELECTRICAL : WINTER- 2022
SUBJECT : UTILIZATION OF ELECTRICAL ENERGY

Day : Tuesday

Time : 02:30 PM-05:30 PM

Date : 13-12-2022

W-13345-2022

Max. Marks : 60

N.B.

- 1) All questions are **COMPULSORY**.
- 2) Figures to the **RIGHT** indicate **FULL** marks.
- 3) Assume suitable data, if necessary.

- Q.1 a) Write a short note on 'High frequency eddy current heating'. (05)
b) What do you mean by 'electric welding' which are the types of welding process? (05)

OR

- Q.1 a) Enlist the advantages of Electric heating over other types of heating process. (05)
b) Write a short note on 'core type' induction heating. (05)

- Q.2 a) What are the effects of 'power factor' on the tariff charged? (05)
b) Explain the sinking fund method to determine depreciation cost of power plant. (05)

OR

- Q.2 a) What are the factors that influence the economic choice of equipment's? (05)
b) What are the various types of Tariffs? (05)

- Q.3 a) Write a short note on 'Laws of Illumination'. (05)
b) What are the properties of a good lighting scheme? (05)

OR

- Q.3 a) Explain the principle and application of a simple photometer. (05)
b) Explain Lumen or light flux method for lighting calculations. (05)

- Q.4 What do you mean by 'electrolysis'? Explain its process and application in detail. (10)

OR

- Q.4 a) Which are the factors governing electro-deposition? (05)
b) Write a short note on 'anodizing'. (05)

- Q.5 Differentiate between steam engine drive, electric drive and diesel drive. (10)

OR

- Q.5 a) Which are the different accessories for track electrification? (05)
b) Write a short note on 'Low frequency AC system' for track electrification. (05)

- Q.6 a) Write a short note on Linear Induction motor for electric traction. (05)
b) Write a short note on shunt and bridge transition control technique. (05)

OR

- Q.6 a) What are the qualities of a good traction motor? (05)
b) What is the 'coefficient of adhesion' in traction? (05)

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