

- Q.26 Explain, how regenerative braking can be obtained with traction motors.
- Q.27 Describe the various type of current collector in common use for overhead contact system.
- Q.28 Write the different methods used for power transfer in electric drive.
- Q.29 State, what types of motor you suggest for Paper mill drive with reason.
- Q.30 Write a short note on Dielectric Heating.
- Q.31 Write the advantages of electric heating.
- Q.32 Comparison between Resistance and Arc welding.
- Q.33 Write the advantages of electric welding.
- Q.34 Give some applications of induction heating.
- Q.35 Write a short note on microwave heating.

SECTION-D

- Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)
- Q.36 Describe the complete arrangement for air conditioning with the help of diagram.
- Q.37 Draw and explain the speed-time curve for urban and suburban service train movement.
- Q.38 Explain the accessories and equipment used for electroplating.

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Roll No.

6th Sem / Elect, Power Station Engg, Elect & Eltx Engg. Subject:- Utilization of Electrical Energy

Time : 3Hrs.

M.M. : 100

SECTION-A

Note: Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 Candela / meter square is the unit of which quantity?
a) Illuminance b) Luminous flux
c) Luminance d) Luminous Intensity
- Q.2 Illumination can be expressed in
a) Radians b) Lux
c) Lumens d) Candela
- Q.3 Which method the heat is transferred from high temperature to low temperature body
a) Conduction b) Radiation
c) Convection d) All of above
- Q.4 Type of electric welding
a) Resistance welding b) Arc welding
c) Both (a) and (b) d) None of the above
- Q.5 Which motor is suitable for lift
a) Induction Motor
b) Synchronous Motor
c) Capacitor Start Single Phase Motor
d) None of above

- Q.6 Which Period is absent in Urban Train Service
 a) Acceleration b) Free running
 c) Coasting d) Braking
- Q.7 For refining process of silver, the solution is required are
 a) Nitric acid and silver nitrate
 b) Hydrochloric acid and silver nitrate
 c) Sulphuric acid and silver nitrate
 d) Any of above
- Q.8 Art of depositing superior metal on inferior metal is known as
 a) Electro-Refining b) Electroplating
 c) Electro-polishing d) None of the above
- Q.9 Air conditioning involves the control of
 a) Temperature
 b) Humidity
 c) Motion of air in enclosure
 d) All of the above
- Q.10 Refrigerant generally used in domestic refrigerator are
 a) Freon b) Ammonia
 c) Nitrogen d) CO₂

SECTION-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

- Q.11 The ratio of total lumens reaching the working plane to total lumens given out by the lamp is called utilization factor. (True/False)

- Q.12 Define solid angle.
- Q.13 In direct lighting scheme more than 90% of total light flux is made to fall directly on the working plane. (True/False)
- Q.14 The current flow in the form of a continuous spark is called _____.
- Q.15 In Induction heating effect of voltage induced by electromagnetic action is employed. (True/False)
- Q.16 Welding is the most efficient way to join metal. (True/False)
- Q.17 Power factor of DC welding is _____ in comparison to AC welding.
- Q.18 Name the different types of Electric Braking.
- Q.19 In three phase ac system of track electrification _____ motor are used.
- Q.20 The principle on which a desert cooler operate is evaporate cooling. (True/False)

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 Compares the filament lamp with fluorescent lamp.
- Q.22 State and describe various types of lighting schemes.
- Q.23 Explain the Faraday's Laws of electro-desposition.
- Q.24 Write the Principle of anodizing.
- Q.25 Write merits of electric traction system over other traction system.