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**5th Sem / Elect
Subject:- Utilization of Electrical Energy**

Time : 3Hrs.

M.M. : 100

SECTION-A

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

- Q.1 Dielectric loss depends upon (CO1)
a) Voltage
b) frequency
c) Voltage and frequency
d) electrode material
- Q.2 Core less induction furnace requires (CO1)
a) Low frequency b) high frequency
c) High power d) low power
- Q.3 Which of the following heating method has max power factor? (CO1)
a) Arc heating b) induction heating
c) Dielectric heating d) resistance heating
- Q.4 Tig welding is suited for welding (CO2)
a) Stainless steel b) carbon steel
c) Aluminium d) none of the above
- Q.5 In electrolysis salt solution is ionized into (CO3)
a) Ions b) cathode
c) Holes d) anode

- Q.6 Size of AC is given in (CO4)
a) Liter
b) tones
c) Length of conditioner
d) watt
- Q.7 Best suited motor for the traction work is (CO6)
a) Slip ring I.M b) dc shunt motor
c) Dc series motor d) synchronous motor
- Q.8 Tractive effort can be increased (CO6)
a) by increasing supply voltage
b) by using KW motors
c) increasing dead weight
d) both B & C answer
- Q.9 Induction furnace work only on (CO1)
a) Ac b) Dc
c) Ac dc both d) none of these
- Q.10 Braking used in locomotive is (CO6)
a) Regenerative braking
b) Plugging
c) Rheostat Braking
d) None

SECTION-B

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

- Q.11 Induction furnace works on the production of _____ current (CO1)
- Q.12 Infra red heating is also called _____ heating (CO1)
- Q.13 EMU stands for _____ (CO6)

(1)

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(2)

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- Q.14 Motor used for textile industry is _____ (CO5)
Q.15 Motor used in domestic refrigerator is _____ (CO5)
Q.16 Size of the air conditioner is given in _____ (CO4)
Q.17 Non consumable electrode _____ is used in TIG welding. (CO2)
Q.18 Most common used current collector is _____ (CO6)
Q.19 The negatively charged ions are called ____ (CO3)
Q.20 Define Refrigerant (CO4)

SECTION-C

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

- Q.21 What are refrigerants. What are the Desirable properties of refrigerants? (CO4)
Q.22 What is Schedule speed. What are the factors affecting schedule speed. (CO6)
Q.23 What are the Desirable characteristics required in Traction motor. (CO6)
Q.24 State merits of electric braking over mechanical braking. (CO6)
Q.25 Explain principle of dielectric Heating. Give three applications. (CO1)
Q.26 What are the advantages of using coated electrodes. (CO2)
Q.27 Define electrodeposition process. Write Factors affecting electro deposition. (CO3)
Q.28 Differentiate AC and DC electric welding. (CO2)

- Q.29 Enlist specifications of commonly used motors. (CO5)
Q.30 Explain characteristics of different kind of mechanical load. (CO5)
Q.31 Draw the electric circuit used in air conditioner (CO4)
Q.32 Explain in brief Galvanizing and its applications (CO3)
Q.33 What are the different types of resistance electric welding. (CO2)
Q.34 Explain why the supply used for an Arc furnace is low voltage High current type. (CO1)
Q.35 Explain in brief Solar Heating. (CO1)

SECTION-D

- Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)
- Q.36 What is electric Heating? Explain Core type and coreless type Induction Heating. (CO1)
Q.37 With the help of neat diagram, Explain the working of various parts of electric locomotive. (CO6)
Q.38 How do you select a motor for the particular job. Also explain method of power Transfer using chain drive and Belt drive. (CO5)