No. of Printed Pages : 4 170943
Roll No. .....

4th Sem / Branch : Electrical
Subject:- Utilization of Electrical Energy (UEE)

Time : 3Hrs. M.M. : 100

SECTION-A

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

Q.1 Which of the following is not an application of electrolysis ? (CO-4)
a) Refining of metals b) Electroplating
c) Electro deposition d) Synthesizing leather

Q.2 Which of the following is the advantage of electric braking ? (CO-7)
a) It avoid wear of track
b) Motor continues to remain loaded during braking
c) It is instantaneous
d) More heat is generated during braking

Q.3 Heat transfer by condition will not occur when (CO-2)
a) Bodies are kept in vacuum
b) Bodies are immersed in water
c) Bodies are exposed to thermal radiations
d) Temperatures of the two bodies are identical

Q.4 The method of heating used in an electric room heat convector is (CO-2)

a) Resistance heating b) Induction heating
c) Dielectric heating d) Arc heating

Q.5 The advantage of a group driver electric drive are (CO-6)
a) High efficiency b) Low Noise
c) Constant speed d) All of the above

Q.6 Domestic refrigerator working on vapour compression cycle uses the following type of expansion device (CO-5)
a) Electrically operated throttling valve
b) Manually operated valve
c) Thermostatic valve
d) Capillary tube

Q.7 The electrodes used for projection welding are (CO-3)
a) Flat and smaller in diameter
b) Flat and larger in diameter
c) Round and smaller in diameter
d) Round and larger in diameter

Q.8 Voltage required for butt welding is (CO-3)
a) 2 to 8 V b) 8 to 15 V
c) 15 to 22 V d) 22 to 30 V

Q.9 At domestic refrigerator's back, the bank of tube is Known as (CO-5)
a) Evaporators tubes
b) Condenser tubes
c) Capillary tubes
d) Refrigerant cooling tubes

Q.10 For supply on 25 KV, 50 Hz single phase, suitable motor for electric traction is (CO-7)

a) ac single phase split phase motor
b) ac single phase universal motor
c) dc shunt motor
d) dc series motor

SECTION-B

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

Q.11 Name two form of Electric welding. (CO-3)
Q.12 Define braking. (CO-7)
Q.13 In which braking, the motor is disconnected from supply and is made to run as generator ? (CO-7)
Q.14 Electrodes used in Arc furnaces are made of ____ (CO-2)
Q.15 Which metal is coated on steel in galvanizing ? (CO-4)
Q.16 In lifting loads, torque is _____ and independent of speed . (CO-6)
Q.17 Unit of refrigeration is _____ (CO-5)
Q.18 which type of braking is commonly used in electric traction ? (CO-7)
Q.19 Write two application of electrolysis (CO-4)
Q.20 Which motor is used in compressor of window air conditioner ? (CO-5)

SECTION-C

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

Q.21 Explain dielectric heating. (CO-2)
Q.22 Explain projection seam welding (CO-3)

Q.23 Write the five advantage of electric traction. (CO-7)
Q.24 Define Electro-deposition. write the factor governing electro-deposition (CO-4)
Q.25 Differentiate between AC and DC are welding (CO-3)
Q.26 Write the five advantages of coated welding electrode. (CO-3)
Q.27 Write the essential properties of resistance heating element (CO-2)
Q.28 Explain Rheostat braking (CO-7)
Q.29 Write a short note on EMU (CO-7)
Q.30 Write a note on Ecofriendly refrigerants (CO-5)
Q.31 Write a short note on train lighting scheme (CO-1)
Q.32 Explain the principle of air conditioning . (CO-5)
Q.33 Explain the factor affecting schedule speed (CO-7)
Q.34 Write a short note on solar heating (CO-2)
Q.35 Write five applications of electrolysis (CO-4)

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

Q.36 Explain the principle of refrigeration. Explain the electric circuit of a refrigerator with neat sketch (CO-5)
Q.37 Draw and explain speed time curve in electric traction for main line (CO-7)
Q.38 Discuss the Ajax Wyatt core furnace and explain its working (CO-2)