No. of Printed Pages : 4 202425/171027/120828
Roll No. ..... /030828

2nd Sem / Comp, ECE, IT, I & Control, Med. Eltx, Eltx & Instr., Power Eltx, EEE

Subject:- Basic Electrical Engineering

Time : 3Hrs. M.M. : 100

SECTION-A

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

Q.1 Which of the following is also known as the dual of Thevenin's theorem? (CO2)

a) Norton's theorem
b) Superposition theorem
c) Maximum power transfer theorem
d) Millman's theorem

Q.2 The specific gravity of acid is checked with the help of a (CO5)

a) Hydrometer b) Hygrometer
c) Lactometer d) Cell tester

Q.3 The resistance of wire varies inversely as (CO1)

a) Area of cross-section b) Length
c) Resistivity d) Temperature

Q.4 Frequency of A.C. used in India is equals to (CO1)

a) 20 Hz b) 40 Hz

c) 50 Hz d) 60 Hz

Q.5 Power factor for pure resistive load is (CO3)

a) unity b) lagging
c) Zero lagging d) Zero leading

Q.6 Unit of magnetomotive force is (CO4)

a) Weber b) Tesla
c) Amp-turns d) Reluctance

Q.7 Electrical energy is used for (CO1)

a) Lighting b) Heating
c) Fabrication d) All of the above

Q.8 The energy metre measures the energy in (CO2)

a) Watts b) KW seconds
c) Megawatts d) Kilowatts

Q.9 Unit of flux density is (CO4)

a) Tesla b) Weber / m sequer
c) Joule d) None of the above

Q.10 A tuned circuit uses (CO4)

a) R-L b) R-C
c) L-C d) Both a and b

SECTION-B

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

Q.11 Good conductors have_____ resistance. (CO1)

Q.12 Define Ohm's law? (CO2)

Q.13 What is self induction? (CO4)

Q.14 What is the unit of power? (CO3)

Q.15 Define current? (CO1)

Q.16 What are active components? (CO1)

Q.17 In a circuit voltage is measured by_____ (CO2)

Q.18 The device which converts AC into DC is called _____ (CO1)

Q.19 Unit of conductance is_____ (CO4)

Q.20 What is the full form of MMF? (CO5)

SECTION-C

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

Q.21 What is the Superposition theorem? (CO2)

Q.22 Define the form factor and peak factor. (CO3)

Q.23 Give significance to the power factor.

Q.24 What are the various advantages of electrical energy? (CO1)

Q.25 Difference between a.c and d.c. (CO1)

Q.26 What is a cell? Explain its types. (CO5)

Q.27 What is Resonance ? Explain series resonance in detail. (CO3)

Q.28 Give an idea about solar panels and write its applications. (CO5)

Q.29 Explain the series and parallel combination of inductor with circuit diagram. (CO4)

Q.30 Define flux and reluctance. (CO4)

Q.31 Write the care and maintenance of lead acid batteries. (CO3)

Q.32 Difference between electrical and magnetic circuits. (CO6)

Q.33 Write a short note on Fleming's left hand rule. (CO5)

Q.34 What is the power factor in AC circuits? State disadvantage of low power factor. (CO7)

Q.35 What would be the equation of current when alternating voltage is applied to R-L circuits? (CO7)

SECTION-D

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

Q.36 What is the power factor in ac circuits? State disadvantage of low power factor. (CO3)

Q.37 Explain the construction, principle and working of nickel cadmium cells. (CO5)

Q.38 State and explain Faraday's law of electro-magnetic induction. (CO4)

(**Note:** Course outcome/CO is for office use only)