Q.27 What are the various advantages of electrical energy? (CO-1)

Q.28 Difference between a.c. and d.c. (CO-1)

Q.29 How much energy is stored in the inductor? Discuss in detail. (CO-4)

Q.30 Define active and reactive power. (CO-3)

Q.31 Write significance of power factor. (CO-6)

Q.32 Explain star-delta conversion with formula. (CO-1)

Q.33 Explain superposition theorem. (CO-2)

Q.34 Explain the series and parallel combination of inductor with circuit diagram. (CO-4)

Q.35 Write a short note of Fleming's left hand rule. (CO-5)

SECTION-D

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

Q.36 Explain the construction, principle and working of lead acid cells. (CO-5)

Q.37 Explain following: (CO-3)

a) Average value b) RMS value

c) Frequency d) Instantaneous value

Q.38 Explain Faraday's law of electromagnetic induction. What is self inductance and mutual inductance? (CO-4)

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

No. of Printed Pages : 4

Roll No. .....

202425/171027/ 120828/030828

2nd Sem / Branch : 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 Energy stored in a magnetic field is measured in (CO-4)

a) kWh b) Coulombs

c) joules d) Watts

Q.2 Direction of induced, emf is found by (CO-4)

a) Fleming's Left hand rule

b) Fleming's Right hand rule

c) b and c both

d) lenz's law

Q.3 The form factor will be equals to (CO-3)

a) 1.0 b) 1.1

c) 1.187 d) 1.100

Q.4 Which of the following is the unit of inductance? (CO-3)

a) Ohm b) Henery

c) Faraday d) none

Q.5 Thevenin's equivalent circuit consists of (CO-2)

a) Series combination of Rth, Vth & R load

b) Vth and Rth in series

c) Vth and Rth in parallel

d) None of these

Q.6 The specific gravity of acid is checked with the help of which equipment (CO-5)

a) Hydrometer b) Hygrometer

c) Lactometer d) Cell tester

Q.7 Which of the following has a negative temperature coefficient? (CO-4)

a) Electrolytes b) brass

c) silver d) mercury

Q.8 Kilowatt-hour(kWh) is a unit of (CO-1)

a) Current b) Power

c) Energy d) Resistance

Q.9 Unit of magnetomotive force is (CO-4)

a) Weber b) Tesla

c) Amp-turns d) Reluctance

Q.10 A tuned circuit uses (CO-5)

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 Unit of current is _____ (CO-1)

Q.12 Frequency of D.C. is _____ (CO-1)

Q.13 The unit of conductivity is _____ (CO-3)

Q.14 Define battery. (CO-5)

Q.15 Define Primary cells. (CO-5)

Q.16 In a pure inductor the voltage _____ the current by 90. (CO-3)

Q.17 Resistance is inversely proportional to ____ (CO-1)

Q.18 What are active components? (CO-1)

Q.19 In a circuit voltage is measured by _____ (CO-2)

Q.20 The device which converts AC into DC is called. _____ (CO-1)

SECTION-C

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

Q.21 Define flux and reluctance. (CO-4)

Q.22 Explain ohm's law. (CO-2)

Q.23 Explain KCL and KVL with their symbols. (CO-2)

Q.24 What is resonance? Explain parallel resonance in detail. (CO-3)

Q.25 Explain RL series circuit with circuit diagram. (CO-3)

Q.26 Give an idea about solar panels and write their applications. (CO-5)