

- Q.30 Explain Norton Theorem. (CO-2)  
 Q.31 Write the care & maintenance of Nickel Cadmium batteries. (CO-5)  
 Q.32 Difference between Electrical & Magnetic Circuit. (CO-6)  
 Q.33 Explain the Fleming's Right Hand Rule. (CO-5)  
 Q.34 Define Flux and Reluctance. (CO-4)  
 Q.35 Explain series & parallel combination of resistance with circuit diagram. (CO-4)

#### **SECTION-D**

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

- Q.36 Explain the concept of rise & current in a resistive circuit. Give the expression for the rise of current in an inductive circuit. (CO-7)  
 Q.37 Define conductance, susceptance, and admittance with their units. (CO-4)  
 Q.38 What is battery? Explain the construction, principle & working of Lead Acid battery. (CO-5)

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**2<sup>nd</sup> 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 The unit of voltage (CO-1)  
 a) Volt b) Watt  
 c) Ampere d) None of above  
 Q.2 The frequency of AC is (CO-6)  
 a) 50HZ b) 0HZ  
 c) 100HZ d) infinite  
 Q.3 The number of cycles completed in one second is called (CO-6)  
 a) Frequency b) Voltage  
 c) Time period d) None of above  
 Q.4 A tuned circuit uses (CO-7)  
 a) R-L  
 b) R-C  
 c) L-C as its component  
 d) None of above  
 Q.5 The rate of doing work is called (CO-1)  
 a) Voltage b) Power  
 c) Current d) None of above

- Q.6 The unit of conductance (CO-7)  
 a) Henry                    b) Ohm  
 c) Siemens                d) None of above
- Q.7 The power factor for pure resistive load (CO-6)  
 a) Unity                    b) Lagging  
 c) Zero lagging            d) Zero leading
- Q.8 The unit of Inductance is (CO-7)  
 a) Henry                    b) Watt  
 c) Volt                     d) Ohm
- Q.9 The energy meter measures the energy in (CO-2)  
 a) Watt                    b) kilowatt Hour  
 c) Megawatt                d) kilowatt
- Q.10 Unit of flux density is (CO-4)  
 a) Tesla                    b) Weber/m<sup>2</sup>  
 c) Joule                    d) None of above

### SECTION-B

- Note:** Objective type questions. All questions are compulsory. (10x1=10)
- Q.11 Define Reluctance. (CO-4)
- Q.12 Unit of current. (CO-1)
- Q.13 Ohm's Law (CO-1)

- Q.14 Unit of Capacitance. (CO-4)
- Q.15 KCL stands for (CO-1)
- Q.16 What is meant by Self Inductance? (CO-4)
- Q.17 Draw the symbol of constant current source. (CO-3)
- Q.18 Define DC. (CO-6)
- Q.19 The energy stored in a magnetic field is \_\_\_\_\_ (CO-4)
- Q.20 Time period. (CO-6)

### SECTION-C

- Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)
- Q.21 What is a cell? Explain its types. (CO-5)
- Q.22 Discuss in detail Solar Cells. (CO-5)
- Q.23 Define RMS value & average value of AC. (CO-6)
- Q.24 Explain the concept of phase difference in alternating quantities. (CO-6)
- Q.25 What is the power factor in AC circuit? State advantages of low power factor (CO-7)
- Q.26 Difference between AC & DC. (CO-6)
- Q.27 Explain Kirchhoff Voltage Law. (CO-1)
- Q.28 Discuss working of Ideal voltage source. (CO-3)
- Q.29 Discuss about series resonance in AC circuit. (CO-7)