SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

Q.23 Describe Resistors and their types, also discuss their series and parallel connection.

Q.24 Draw and explain Star connection for three phase supply, also discuss Star to Delta conversion.

Q.25 Explain how energy is stored in an inductor, discuss series and parallel connections of Inductors.

2nd Sem / Instrumentation and Control Engg.

Subject : Fundamentals of Electrical Engineering

Time : 3 Hrs. M.M. : 60

SECTION-A

Note: Multiple choice questions. All questions are compulsory (6x1=6)

Q.1 Unit of current is_____.

a) Amperes b) Volts

c) Watt d) None of these

Q.2 An instrument that measures the Resistance is known as_____.

a) Ohm meter b) Voltmeter

c) Ammeter d) Wattmeter

Q.3 Unit of Electronic Potential is_____.

a) Ω b) Ωm

c) Amperes d) Volts

Q.4 An Ideal current source has_____.

a) Zero internal Resistance

b) Infinite internal Resistance

c) High internal Resistance

d) Very low internal Resistance

Q.5 SI unit of Flux is_____.

a) Tesla b) Weber

c) Ampere turns d) None of these

Q.6 Resonance occurs in a LC circuit when _____.

a) XL >> Xc b) XL << Xc

c) XL = Xc d) Xc = Q.

SECTION-B

Note: Objective/ Completion type questions. All questions are compulsory. (6x1=6)

Q.7 Define Primary cell.

Q.8 Mention one application of Lithium ion battery.

Q.9 Expand R.M.S.

Q.10 Define DC.

Q.11 Norton Theorem is used to simplify a network in terms of currents instead of voltages . (True/False)

Q.12 Expand KCL.

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

Q.13 Write a Short note on Lead acid battery.

Q.14 What is an electric circuit.

Q.15 Draw and explain R-L series circuit with its phasor diagram.

Q.16 State and Explain Superposition Theorem.

Q.17 Write the factors affecting capacitance of a capacitor.

Q.18 Differentiate between AC and DC supply.

Q.19 Explain Kirchhoff's voltage law.

Q.20 Write a short note on conductance and susceptance.

Q.21 Write a short note on Faraday's law of Electromagnetic induction.

Q.22 Describe series and parallel connection of battery.