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1st Sem / Electrical

Subject : Principles 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 Voltage is

a) Farad b) Volt

c) Ampere d) Watt

Q.2 Unit of Inductance is

a) Farad b) Second

c) Ohm d) Henry

Q.3 An ideal voltage source has internal Resistance

a) zero b) Infinite

c) 10 d) 100

Q.4 Power is measured by

a) Voltmeter b) Energy meter

c) Watt meter d) Ammeter

Q.5 Unit of Magnetic Flux density is

a) Weber / metre^2 b) Weber

c) Weber meter d) Farad

Q.6 In lead Acid battery/ cell, the positive plate is made of

a) Lead b) Carbon

c) Leadoxide d) Zinc

SECTION-B

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

Q.7 Unit of Resistance is_____

Q.8 If two resistors of 1Wand 1Ware connected in series, their total equivalent resistance is= _____ W.

Q.9 Unit of M.M.F is_____.

Q.10 As the temperature of conductors increases the resistance of conductor increases / decreases.

Q.11 Energy stored in a capacitor = _____

Q.12 With an increase in frequency the value of Eddy current losses = Increases/ Decreases

SECTION-C

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

Q.13 Explain the effect of Temperature on the resistance of conductor.

Q.14 State and explain Ohm's law.

Q.15 Define & explain KCL.

Q.16 Explain the force between two parallel current carrying conductors.

Q.17 Draw and explain B-H. Curve.

Q.18 Explain the concept of Self Inductance.

Q.19 Explain various methods of charging of Lead Acid battery.

Q.20 Explain Faraday's laws of Electro magnetic Induction.

Q.21 Explain Primary cell and Secondary cell.

Q.22 Explain the methods of Disposal of Batteries.

SECTION-D

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

Q.23 Explain construction, working, principle and applications of Lead Acid Battery.

Q.24 Explain star to Delta and Delta to star conversion.

Q.25 Explain the concept of Voltage source, current source, their symbol, Graphical representation and conversion.