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2nd Sem. / Electrical Engg.

Subject : Electrical Networks

Time : 3 Hrs. M.M. : 60

SECTION-A

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

Q.1 The unit of Time period is (CO2)

a) Hertz b) Seconds

c) Meter d) Ampere

Q.2 The minimum value of Power factor is (CO3)

a) 1 b) -1

c) 0 d) 2

Q.3 The unit of Admittance is (CO3)

a) ohms b) volts

c) hertz d) mho

Q.4 At time of series resonance value of current is (CO3)

a) Maximum b) Minimum

c) Zero d) Negative

Q.5 In Delta connection line voltage is equal to (CO5)

a) Line current b) Phase current

c) Phase voltage d) Neutral

Q.6 The unit of inductive reactance is (CO3)

a) Farad b) volt

c) ampere d) ohm

SECTION-B

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

Q.7 Define Amplitude (CO2)

Q.8 Unit of frequency is_____ (CO2)

Q.9 When AC is applied to pure capacitor, current leads the voltage by phase angle of _____ (CO3)

Q.10 When Z=(2+3J) . The value of R is equal to _____ (CO3)

Q.11 Define Time Period (CO2)

Q.12 Define Resonance (CO4)

SECTION-C

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

Q.13 Define and Explain Maximum Power Transfer Theorem. (CO1)

Q.14 Define Norton Theorem. (CO1)

Q.15 Define and explain average value of A.C. (CO2)

Q.16 Explain difference between AC & DC (CO2)

Q.17 Explain A.C applied to pure capacitor. (CO3)

Q.18 Explain Impedance Triangle for R-L Series circuit. (CO3)

Q.19 Draw and explain delta connection with relationship between line and phase quantities. (CO5)

Q.20 Draw power triangle for RLC series circuit. (CO3)

Q.21 Define Form factor and Peek Factor. (CO2)

Q.22 Explain differences between active and passive network. (CO1)

SECTION-D

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

Q.23 Derive and Explain Series and Parallel Resonance with graphs. (CO4)

Q.24 Explain power factor, its significance, disadvantages and methods to improve it. (CO3)

Q.25 Define Thevenin Theorem and Super Position Theorem. (CO5)