

No. of Printed Pages : 4

Roll No. ....

220921

**2nd Sem / Branch : Electrical  
Subject:- Electrical Networks**

Time : 3Hrs.

M.M. : 60

**SECTION-A**

**Note:** Multiple choice questions. All questions are compulsory  $(6 \times 1 = 6)$

Q.1 The unit of Resistance is

- a) Ohm
- b) Volts
- c) Joule
- d) None

Q.2 The frequency of A.C in india is \_\_\_\_\_ Hz

- a) 10
- b) 50
- c) 100
- d) 25

Q.3 The maximum Value of power factor is

- a) 0
- b) 1
- c) 2
- d) 3

Q.4 The Phase difference between voltage and current is \_\_\_\_\_ in pure resistive circuit its.

- a)  $0^\circ$
- b)  $90^\circ$
- c)  $180^\circ$
- d)  $45^\circ$

Q.5 The unit of Power factor is

- a) Volts
- b) Watts
- c) Joule
- d) None

Q.6 Power is measured by \_\_\_\_\_

- a) Voltmeter
- b) Wattmeter
- c) Ammeter
- d) Energy meter

**SECTION-B**

**Note:** Objective type questions. All questions are compulsory.  $(6 \times 1 = 6)$

Q.7 Henry is the unit of \_\_\_\_\_

Q.8 Define Time Period

Q.9 Define Peak factor

Q.10 Define Quality factor

Q.11 Define Linear Network

Q.12 Define Power factor

**SECTION-C**

**Note:** Short answer type questions. Attempt any eight questions out of ten questions.  $(8 \times 4 = 32)$

Q.13 Define and Explain Super Position Theorem

Q.14 Explain generation of alternating voltage

Q.15 Define and explain R.M.S value of A.C

Q.16 Explain the pure capacitive circuit fed by pure A.C. Supply.

Q.17 Explain the concept of transient and harmonics in A.C circuits.

(1)

220921

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220921

- Q.18 Write down Relation between phase and line quantities in star and delta connection
- Q.19 Compare sense and Parallel Resonance
- Q.20 Explain Advantages of High power factor
- Q.21 Explain parallelogram method of adding two alternating quantities.
- Q.22 Explain concept of Truepower, apparent power and Reactive Power

### **SECTION-D**

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

- Q.23 Define and explain Thevenin's Theorem
- Q.24 Define and explain Resonance in series RLC circuit
- Q.25 Explain principle of generation of 3-phase alternating emf.

(3)

220921

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220921