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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 (6x1=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

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- Q.6 Power is measured by \_\_\_\_\_  
a) Volt meter                                      b) Wattmeter  
c) Ammeter    d) Energy meter

**SECTION-B**

**Note:** Objective type questions. All questions are compulsory. (6x1=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. (8x4=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.

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- 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.