

1. Which of these is not a property of an ideal transformer.

- a. It has no losses
- b. Its windings have zero resistance
- c. **Low permeability**
- d. Leakage flux is zero

2. Parallel resonant circuit is sometimes known as

- a. **rejector circuit.**
- b. acceptor circuit.
- c. inductive circuit.
- d. capacitive circuit.

3. Which of these is an inverted ratio with respect to the voltage transformation ratio (K)

- a. **Current**
- b. Number of turns
- c. Voltage

4. Which of these is not an advantage of a half wave rectifier?

- a. One diode is sufficient
- b. Circuit is easy to design
- c. **Ripple factor is low**
- d. No centre tap on transformer is necessary

5. State one point of similarity between full wave rectifier and bridge rectifier

- a. TUF
- b. **Ripple frequency**
- c. PIV rating of a diode
- d. AC power input

6. If the field winding resistance of a D.C. generator is increases, then output voltage will

- a. increase.

- b. decrease.**
- c. remain unaffected.
- d. fluctuate heavily.

7. For a transistor in CE configuration, the emitter base junction and collector base junction in

- a. Active
- b. Saturation**
- c. Cut-off

8. The SI unit of \_\_\_\_\_ is siemens.

- a. Resistivity
- b. Capacitance
- c. Conductivity**
- d. Inductance

9. Resistance is inversely proportional to

- a. Temperature
- b. Length of material
- c. Cross sectional area**
- d. Resistivity

10. Susceptance : the ratio of reactance to the square of impedance, is denoted by which letter?

- a. B**
- b. H
- c. X
- d. Y

11. Which of the following parameters exhibit a point of difference between series and parallel resonant circuit?

- a. Impedance**
- b. Frequency

- c. Type of resistive circuit
- d. Power factor

12. Using 2 wattmeter method in power application, what is the value of power factor when  $W_1 = W_2$  ?

- a. 0
- b. 1**
- c. 0.5
- d. Infinity

13. Which of these is not an advantage of a 2 wattmeter method?

- a. Applicable for 3 phase, 4 wire system**
- b. Only 2 wattmeters are sufficient to measure total 3 phase power
- c. Applicable for balanced and unbalanced loads.
- d. If load is balanced, power factor can also be determined

14. Which of these is false for a full wave rectifier using 4 diodes

- a. It uses centre tapped transformer**
- b. Output voltage is less
- c. Transformer is used more effectively
- d. TUF is more than a 2 diode rectifier

15. The SI unit of \_\_\_\_\_ is Ampere turns.

- a. M.M.F.**
- b. Magnetic field strength
- c. Magnetic flux
- d. Magnetic field

16. What is the output parameter to be defined in a parallel to parallel interconnection in 2 port networks?

- a. Impedence
- b. Admittance**
- c. Hybrid

d. Transmission

17. In a synthesised network synthesis, if all poles and zeros of a given function lie alternately on a  $j\omega$  axis, the network is:

- a. LC            b. RC            c. RL            d. RLC

18. Smith chart is based on the polar plot of:

- a. Reactance  
b. Voltage  
c. Current

**d. Voltage reflection co-efficient**

19. An element which supplies electric energy to the circuit is called

- a. active element**  
b. passive element  
c. bilateral element  
d. source element.

20. In a series R-L-C circuit at resonance

- a. impedance is maximum  
**b. admittance is maximum**  
c. Impedance is purely reactive  
d. current is minimum

21. A series-resonant circuit implies

- a. zero pf and maximum current  
**b. unity pf and maximum current**  
c. zero pf and minimum current  
d. unity pf and minimum current

22. The commutator segments are connected to the armature conductors by means of

a. carbon brushes

**b. copper lugs**

c. slip rings

d. brazing