1. Which of these is not a property of an ideal transformer.
2. It has no losses
3. Its windings have zero resistance
4. **Low permeability**
5. 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)

1. **Current**
2. Number of turns
3. Voltage

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

1. One diode is sufficient
2. Circuit is easy to design
3. **Ripple factor is low**
4. No centre tap on transformer is necessary

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

1. TUF
2. **Ripple frequency**
3. PIV rating of a diode
4. 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

1. Active
2. **Saturation**
3. Cut-off

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

1. Resistivity
2. Capacitance
3. **Conductivity**
4. Inductance

9. Resistance is inversely proportional to

1. Temperature
2. Length of material
3. **Cross sectional area**
4. Resistivity

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

1. **B**
2. H
3. X
4. Y

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

1. **Impedence**
2. Frequency
3. Type of resistive circuit
4. Power factor

12. Using 2 wattmeter method in power application, what is the value of power factor when W1= W2 ?

1. 0
2. **1**
3. 0.5
4. Infinity

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

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

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

1. **It uses centre tapped transformer**
2. Output voltage is less
3. Transformer is used more effectively
4. TUF is more than a 2 diode rectifier

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

1. **M.M.F.**
2. Magnetic field strength
3. Magnetic flux
4. Magnetic field

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

1. Impedence
2. **Admittance**
3. Hybrid
4. Transmission

17. In a synthesised network synthesis, if all poles and zeros of a given function lie alternately on a jw 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 resonancea.impedance is maximum **b. admittance is maximum** c.Impedance is purely reactived. current is minimum

21. A series-resonant circuit impliesa. 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