

1. When frequency is decreased , the impedance in parallel RL circuit
 - (a) increases
 - (b) decreases**
 - (c) remains same
 - (d) either increase or decrease

2. when resistor voltage in series RL circuit becomes less than the inductor voltage, the phase angle
 - (a) increases**
 - (b) decreases
 - (c) remains same
 - (d) either increase or decrease

3. when frequency of applied voltage in series RL circuit decreases, the impedance
 - (a) increases
 - (b) decreases**
 - (c) remains same
 - (d) none of the above

4. To increase the current in the series RL circuit, frequency should be
 - (a) increased
 - (b) decreased**
 - (c) unchanged
 - (d) all of the above

5. When frequency of applied voltage in series RL circuit increases, the phase angle
 - (a) increases**
 - (b) decreases
 - (c) remains same
 - (d) cannot be determined

6. When frequency of applied source is decreased , the impedance in parallel RC circuit
(a) **increases**
(b) decreases
(c) remains same
(d) either increase or decrease
7. When frequency of applied source is decreased , the impedance in series RC circuit
(a) **increases**
(b) decreases
(c) remains same
(d) either increase or decrease
8. When frequency of applied voltage in series RC circuit increases, the phase angle
(a) increases
(b) **decreases**
(c) remains same
(d) cannot be determined
9. When a sinusoidal voltage is applied across R-L series circuit having $R = XL$, the phase angle will be
(a) 90° lag
(b) **45° lag**
(c) 45° lead
(d) 90° leading
10. Atfrequencies the parallel R-L circuit behaves as purely resistive
(a) Low
(b) Very low
(c) High
(d) **Very high**

11. The voltage applied across an R-L circuit is equal to.....of V_R and V_L
(a) **Phasor sum**
(b) Arithmetic sum
(c) Sum of the squares
(d) Algebraic sum
12. In a parallel R-C circuit, the current alwaysthe applied voltage
(a) Lags
(b) **Leads**
(c) Remains in phase with
(d) None of the above
13. At very low frequencies a series R-C circuit behaves as almost purely.....
circuit
(a) Resistive
(b) Inductive
(c) **Capacitive**
(d) None of the above
14. An alternating voltage $v = V_m \sin \theta$ is applied to a pure capacitive circuit. The equation of current will be
(a) $I_m \sin \theta$
(b) $I_m \sin (\theta - \pi/2)$
(c) **$I_m \sin (\theta + \pi/2)$**
(d) $I_m \sin (\theta - \pi/4)$
(e)
15. The power factor of an ac circuit is given by
(a) X_L / R
(b) Z/R
(c) R/ X_L
(d) **R/Z**
16. Power absorbed in a pure inductive circuit is zero because
(a) Reactive component of current is zero
(b) Active component of current is maximum
(c) **Power factor is zero**
(d) Reactive component of current is equal to active component

17. The active and reactive component of line current of an inductive circuit are equal. The power factor of the circuit is
- (a) 1
 - (b) 0.707 lagging**
 - (c) 0.5 lagging
 - (d) 0.866 lagging
18. In an R-L series circuit, the two sides of the impedance triangle that forms the phase angles are
- (a) R and X_L
 - (b) R and Z**
 - (c) Z and X_L
 - (d) All of the above
19. In RLC series circuit, if the frequency is below the resonant frequency, then
- (a) $X_C = X_L$
 - (b) $X_C < X_L$
 - (c) $X_C > X_L$
 - (d) All of the above
20. At series resonance
- (a) Circuit impedance is very high
 - (b) Circuit power factor is minimum
 - (c) Voltage across L or C is zero
 - (d) Circuit power factor is unity**
21. At series resonance, the voltage across L or C is
- (a) Equal to applied voltage
 - (b) Less than applied voltage
 - (c) More than applied voltage**
 - (d) Equal to voltage across R

22. At parallel resonance
- (a) Circuit impedance is minimum
 - (b) Power factor is zero
 - (c) Line current is maximum
 - (d) Power factor is unity**
23. A series resonant circuit magnifies
- (a) Voltage**
 - (b) Current
 - (c) Both voltage and current
 - (d) None of the above
24. When supply frequency is less than that resonant frequency in a parallel ac circuit, then circuit is
- (a) Resistive
 - (b) Capacitive
 - (c) Inductive**
 - (d) All of the above
25. When supply frequency is more than that resonant frequency in a parallel ac circuit, then circuit is
- (a) Resistive
 - (b) Capacitive**
 - (c) Inductive
 - (d) All of the above
26. In a circuit element, the p.d. is higher than the applied voltage of the source, that will be
- (a) AC circuit**
 - (b) DC circuit
 - (c) ac or dc circuit
 - (d) neither ac nor dc circuit

27. If a phasor is multiplied by j , then
- (a) Only its magnitude changes
 - (b) Only its direction changes**
 - (c) Both magnitude and direction changes
 - (d) Both magnitude and direction remains same
28. If admittance of a parallel ac circuit is increased, the circuit current
- (a) Remains constant
 - (b) is decreased
 - (c) is increased**
 - (d) none of the above
29. In an ac circuit, low value of KVAR compared with KW indicates
- (a) Low efficiency
 - (b) High power factor**
 - (c) Unity power factor
 - (d) Maximum load current