

1. Oscillator circuit usesfeedback.
 - (a) **Positive**
 - (b) Negative
 - (c) Both a and b
 - (d) Neither a nor b

2. An oscillator converts
 - (a) a.c. power into d.c. power
 - (b) **d.c. power into a.c. power**
 - (c) mechanical power into a.c. power
 - (d) none of the above

3. In an LC transistor oscillator, the active device is
 - (a) LC tank circuit
 - (b) Biasing circuit
 - (c) **Transistor**
 - (d) None of the above

4. In an LC circuit, when the capacitor is maximum, the inductor energy is
 - (a) **Minimum**
 - (b) Maximum
 - (c) Half-way between maximum and minimum
 - (d) None of the above

5. In an LC oscillator, the frequency of oscillator is L or C.
 - (a) Proportional to square of

- (b) Directly proportional to
- (c) Independent of the values of
- (d) **Inversely proportional to square root of**

6. An oscillator produces..... oscillations

- (a) Damped
- (b) **Undamped**
- (c) Modulated
- (d) None of the above

7. An LC oscillator cannot be used to produce frequencies

- (a) High
- (b) Audio
- (c) **Very low**
- (d) Very high

8. In a phase shift oscillator, we use RC sections

- (a) Two
- (b) **Three**
- (c) Four
- (d) None of the above

9. In a phase shift oscillator, the frequency determining elements are

- (a) L and C
- (b) R, L and C
- (c) **R and C**
- (d) None of the above

10. The piezoelectric effect in a crystal is
- (a) **A voltage developed because of mechanical stress**
 - (b) A change in resistance because of temperature
 - (c) A change in frequency because of temperature
 - (d) None of the above
11. If the crystal frequency changes with temperature, we say that crystal has temperature coefficient
- (a) **Positive**
 - (b) Zero
 - (c) Negative
 - (d) None of the above
12. The crystal oscillator frequency is very stable due to of the crystal
- (a) Rigidity
 - (b) Vibrations
 - (c) Low Q
 - (d) **High Q**
13. Hartley oscillator is commonly used in
- (a) **Radio receivers**
 - (b) Radio transmitters
 - (c) TV receivers
 - (d) None of the above
14. The application where one would most likely find a crystal oscillator is

- (a) Radio receiver
 - (b) **Radio transmitter**
 - (c) AF sweep generator
 - (d) None of the above
15. An oscillator differs from an amplifier because it
- (a) Has more gain
 - (b) **Requires no input signal**
 - (c) Requires no d.c. supply
 - (d) Always has the same input
16. One condition for oscillation is
- (a) A phase shift around the feedback loop of 180°
 - (b) A gain around the feedback loop of one-third
 - (c) **A phase shift around the feedback loop of 0°**
 - (d) A gain around the feedback loop of less than 1
17. A condition for oscillations is
- (a) **A gain of 1 around the feedback loop**
 - (b) No gain around the feedback loop
 - (c) The attenuation of the feedback circuit must be one-third
 - (d) The feedback circuit must be capacitive
18. For an oscillator to properly start, the gain around the feedback loop must initially be
- (a) 1
 - (b) **Greater than 1**
 - (c) Less than 1
 - (d) Equal to attenuation of feedback circuit

19. In Colpitt's oscillator, feedback is obtained
- (a) By magnetic induction
 - (b) By a tickler coil
 - (c) **From the centre of split capacitors**
 - (d) None of the above
20. Quartz crystal is most commonly used in crystal oscillators because
- (a) **It has superior electrical properties**
 - (b) It is easily available
 - (c) It is quite inexpensive
 - (d) None of the above
21. Which is a fixed frequency oscillator
- (a) Phase-shift oscillator
 - (b) Hartely-oscillator
 - (c) Colpitt's oscillator
 - (d) **Crystal oscillator**
22. In an LC oscillator, if the value of L is increased four times, the frequency of oscillations is
- (a) Increased 2 times
 - (b) Decreased 4 times
 - (c) Increased 4 times
 - (d) **Decreased 2 times**
23. A Wien bridge oscillator uses feedback
- (a) Only positive
 - (b) Only negative

- (c) **Both positive and negative**
 - (d) None of the above
24. In a Wien-bridge oscillator, if the resistances in the positive feedback circuit are decreased, the frequency.....
- (a) Remains the same
 - (b) Decreases
 - (c) **Increases**
 - (d) Insufficient data
25. The signal generator generally used in the laboratories is oscillator
- (a) **Wien-bridge**
 - (b) Hartely
 - (c) Crystal
 - (d) Phase shift
26. An ideal operational amplifier has
- (a) infinite output impedance
 - (b) zero input impedance
 - (c) **infinite bandwidth**
 - (d) All of the above
27. Which of the following oscillator uses a capacitive voltage divider circuit to provide feedback?
- a. Hartley
 - b. RC phase shift
 - c. **Colpitts**
 - d. Wein bridge

28. The oscillator that gives good frequency stability is
- a. Hartley oscillator
 - b. RC phase shift oscillator
 - c. **Crystal oscillator**
 - d. Wein bridge oscillator
29. Which of the following oscillator cannot be used in low frequency oscillations?
- a) Wein bridge oscillators
 - b) RC phase shift oscillators
 - c) **Colpitts oscillators**
 - d) RC oscillators
30. Relaxation oscillators are also known as _____
- a) **Multivibrator**
 - b) Phase shift oscillators
 - c) Blocking oscillators
 - d) Saw tooth generator
31. Multivibrators belongs to which of the following category?
- a. **Square wave oscillators**
 - b. Sinusoidal oscillators
 - c. Ramp wave oscillators
 - d. Triangular wave oscillators