**Oscillator**

**Q1. An oscillator converts ……………..**

1. a.c. power into d.c. power
2. d.c. power into a.c. power
3. mechanical power into a.c. power
4. none of the above

**Answer : 2**

**Q2. In an LC transistor oscillator, the active device is ……………**

1. LC tank circuit
2. Biasing circuit
3. Transistor
4. None of the above

**Answer : 3**

**Q3. In an LC circuit, when the capacitor is maximum, the inductor energy is ……….**

1. Minimum
2. Maximum
3. Half-way between maximum and minimum
4. None of the above

**Answer : 1**

**Q4. In an LC oscillator, the frequency of oscillator is ……………. L or C.**

1. Proportional to square of
2. Directly proportional to
3. Independent of the values of
4. Inversely proportional to square root of

**Answer : 4**

**Q5. An oscillator produces……………. oscillations**

1. Damped
2. Undamped
3. Modulated
4. None of the above

**Answer : 2**

**Q6. An oscillator employs ……………… feedback**

1. Positive
2. Negative
3. Neither positive nor negative
4. Data insufficient

**Answer : 1**

**Q7. An LC oscillator cannot be used to produce ……………….. frequencies**

1. High
2. Audio
3. Very low
4. Very high

**Answer : 3**

**Q8. Hartley oscillator is commonly used in ………………**

1. Radio receivers
2. Radio transmitters
3. TV receivers
4. None of the above

**Answer : 1**

**Q9. In a phase shift oscillator, we use …………. RC sections**

1. Two
2. Three
3. Four
4. None of the above

**Answer : 2**

**Q10. In a phase shift oscillator, the frequency determining elements are …………**

1. L and C
2. R, L and C
3. R and C
4. None of the above

**Answer : 3**

**Q11. A Wien bridge oscillator uses ……………. feedback**

1. Only positive
2. Only negative
3. Both positive and negative
4. None of the above

**Answer : 3**

**Q12. The piezoelectric effect in a crystal is ……………**

1. A voltage developed because of mechanical stress
2. A change in resistance because of temperature
3. A change in frequency because of temperature
4. None of the above

**Answer : 1**

**Q13. If the crystal frequency changes with temperature, we say that crystal has ………….. temperature coefficient**

1. Positive
2. Zero
3. Negative
4. None of the above

**Answer : 1**

**Q14. The crystal oscillator frequency is very stable due to ………………. of the crystal**

1. Rigidity
2. Vibrations
3. Low Q
4. High Q

**Answer : 4**

**Q15. The application where one would most likely find a crystal oscillator is ……………..**

1. Radio receiver
2. Radio transmitter
3. AF sweep generator
4. None of the above

**Answer : 2**

**Q16. An oscillator differs from an amplifier because it ………**

1. Has more gain
2. Requires no input signal
3. Requires no d.c. supply
4. Always has the same input

**Answer : 2**

**Q17. One condition for oscillation is ………….**

1. A phase shift around the feedback loop of 180o
2. A gain around the feedback loop of one-third
3. A phase shift around the feedback loop of 0o
4. A gain around the feedback loop of less than 1

**Answer : 3**

**Q18. A second condition for oscillations is ……………….**

1. A gain of 1 around the feedback loop
2. No gain around the feedback loop
3. The attention of the feedback circuit must be one-third
4. The feedback circuit must be capacitive

**Answer : 1**

**Q19. In a certain oscillator Av = 50. The attention of the feedback circuit must be …………**

1. 1
2. 01
3. 10
4. 02

**Answer : 4**

**Q20. For an oscillator to properly start, the gain around the feedback loop must initially be**

1. 1
2. Greater than 1
3. Less than 1
4. Equal to attenuation of feedback circuit

**Answer : 2**

**Q21. In a Wien-bridge oscillator, if the resistances in the positive feedback circuit are decreased, the frequency……….**

1. Remains the same
2. Decreases
3. Increases
4. Insufficient data

**Answer : 3**

**Q22. In Colpitt’s oscillator, feedback is obtained …………….**

1. By magnetic induction
2. By a tickler coil
3. From the centre of split capacitors
4. None of the above

**Answer : 3**

**Q23. The Q of the crystal is of the order of …………**

1. 100
2. 1000
3. 50
4. More than 10,000

**Answer : 4**

**Q24. Quartz crystal is most commonly used in crystal oscillators because ………….**

1. It has superior electrical properties
2. It is easily available
3. It is quite inexpensive
4. None of the above

**Answer : 1**