

11:11 AM

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Sri Mahalingeswara ITI

Answer Key

Duration: 30 Mins

Total Marks: 14

Q.ID: ITISKILL8178HX

1. Why LC tuned circuits are not used in audio frequency oscillators?

- A) LC tank circuit operation requires high voltage
 B) LC values required is too large
 C) LC components are not available
 D) LC tank circuit does not produce AF signals

Answer: B) LC values required is too large

2. Which circuit is determined by the frequency of LC tank circuit?

- A) Multiplexed
 B) Oscillator
 C) Amplifier
 D) Demodulator

Answer: B) Oscillator

3. How many time constant period is required to fully charge a capacitor?

- A) 10 time constants
 B) 5 time constants
 C) 7 time constants
 D) 3 time constants

Answer: B) 5 time constants

4. How many time constants required to change a capacitor to 63.2% of its full charge voltage?

- A) Four time constant
 B) Three time constant
 C) Two time constant
 D) One time constant

Answer: D) One time constant

5. What is the percentage of charge accumulated by the capacitor at the end of 2 time constant limit?

- A) 0.4
 B) 0.864
 C) 0.632
 D) 0.5

Answer: B) 0.864

6. What is the resonant frequency range of a crystal?

- A) Between 0.5 and 30 MhZ
 B) Between 0.5 and 25 MHZ
 C) Between 0.1 and 1MHZ
 D) Between 0.1 and 10 MHZ

Answer: A) Between 0.5 and 30 MhZ

7. Which is the transistor used to operate the Colpitts oscillator?

- A) BF 194B
 B) AC 127
 C) BC 148B
 D) AC 188

Answer: A) BF 194B

8. What is the natural shape of a quartz crystal?

- A) Hexagonal prism with pyramid at ends
 B) Cube shape with pyramid at ends
 C) Pentagonal prism with pyramid at ends
 D) Cylindrical shape with pyramid at ends

Answer: A) Hexagonal prism with pyramid at ends

9. What is the difference of Colpitts oscillator compare to Hartley oscillator?

- A) Uses split capacitor
 B) Uses crystal oscillator
 C) Uses split inductor
 D) Uses SCR combination

Answer: A) Uses split capacitor

10. Which circuits commonly use parallel-fed Hartley oscillators?

- A) Radio receivers
 B) Television receivers
 C) Automatic voltage stabilizers
 D) Stereo amplifiers

Answer: A) Radio receivers

11. What type of arrangement is required to sustain the oscillations of the oscillator circuit?

- A) Provide negative feedback
 B) Increase the bias voltage
 C) Provide regenerative feedback
 D) Increase the value of inductor

Answer: C) Provide regenerative feedback

12. What type of feed back is used by the Wein-bridge oscillator to oscillate the signal?

- A) Both positive and negative feedback
 B) Positive feedback
 C) Negative feedback
 D) No feedback

Answer: A) Both positive and negative feedback

13. How to improve the frequency stability in oscillator circuits?

- A) By using quartz crystal
 B) Using L and C
 C) Improve the property of circuits
 D) Increase the supply voltage

Answer: A) By using quartz crystal

14. How to overcome the problem of frequency drift in LC oscillators?

- A) Provide negative feedback
 B) Using high Q coils and good quality capacitors
 C) Increase the supply voltage
 D) Apply opposite polarity of signal

Answer: B) Using high Q coils and good quality capacitors