

ITI Quiz - 24-Mar-2026 11:11 AM

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Oscillator module QP
14MCQ

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Question Paper

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Score: 14/14 (100.00%)

Code: 1893

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

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

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

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

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

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

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

- A) Oscillator (Correct)**
- B) Amplifier
- C) Multiplexed
- D) Demodulator

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

- A) 0.4
- B) 0.5
- C) 0.632
- D) 0.864 (Correct)**

6. 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 (Correct)**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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