

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

Q. ID: ITISKILL8178HX

Oscillator module QP  
14MCQ

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Question Paper

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Score: 7/14 (50.00%)

Code: 5462

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

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

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

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

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 (Incorrect)  
C) Negative feedback  
D) **Both positive and negative feedback**

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

- A) Increase the supply voltage (Incorrect)  
B) **By using quartz crystal**  
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 (Incorrect)  
B) **BF 194B**  
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 (Incorrect)  
B) Provide negative feedback  
C) **Using high Q coils and good quality capacitors**  
D) Increase the supply voltage

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

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