

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

Q. ID: ITISKILL8178HX

Oscillator module QP  
14MCQ

March 2026

Sri Mahalingeswara ITI

Question Paper

Student: Dhanush Gowda HA

Score: 7/14 (50.00%)

Code: 7752

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

- A) Cylindrical shape with pyramid at ends (Incorrect)      B) Cube shape with pyramid at ends  
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 (Incorrect)      B) 0.5  
C) 0.632      **D) 0.864**

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      **B) By using quartz crystal**  
C) Using L and C (Incorrect)      D) Improve the property of circuits

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

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

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**      D) Increase the supply voltage (Incorrect)

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