

# Sri Mahalingeswara ITI

## TEST - 07/ MAR-2026

Q. ID: ITISKILL0082JL | March 2026

64.00% 16 / 25

Student Name	Ramacharan	Access Code	0453
Attempt No.	#1	Completion Time	10:50 AM
Rank	#30	Total Questions	25

16 SCORE

25 MAX MARKS

16 CORRECT

9 INCORRECT

### Answer Review

Q1 **CORRECT** What is the unit of electric charge?

A. Volts

B. Hertz

C. Ampere

D. Coulomb

Q2 **CORRECT** Which material contains eight electrons in valency layer?

A. Insulators

B. Conductors

C. Semiconductors

D. Intrinsic semiconductors

Q3 **CORRECT** Which material is used as electrical insulator?

A. Gallium

B. Porcelain

C. Aluminium

D. Germanium

Q4 **CORRECT** How the single strand wire is called?

A. Flexible wire

B. Twisted wire

C. Hook up wire

D. Multi strand wire

Q5 **CORRECT** Which energy is converted by the battery to produce electricity?

A. Electrical energy into light energy

B. Chemical energy into electrical energy

C. Mechanical energy into electrical energy

D. Electrical energy into mechanical energy

Q6 **INCORRECT** What is the percentage of sulphuric acid in electrolyte used for lead-acid batteries?

A. 12%

B. 25%

C. 27%

D. 40%

Q7 **INCORRECT** Which method is adopted to charge a car battery with voltage rating of 2.3 V per cell?

A. Float charging method

B. Trickle charging method

C. Constant current charging method

D. Constant voltage charging method

Q8 **INCORRECT** Why the load testing is done on the lead-acid battery?

A. Test the dimensional accuracy

B. Verify the rated power delivery

C. Measure the rated output voltage

D. Test  $I^2R$  power loss in the battery cell

Q9 **INCORRECT** Which is the 3 terminal, negative voltage regulator IC?

A. LM 320

B. LM 340

C. IC 7905

D. IC 7812

Q10 **CORRECT** What is the expansion of PRF related to frequency?

A. Power regulated frequency

B. Pulse repetition frequency

C. Pulse repetition frequency

D. Pulse probability frequency

Q11 **INCORRECT** What is the name of the ratio of ON-time pulse to the OFF-time pulse of multivibrator?

A. Control voltage

B. Pulse repetition

C. Pulse repetition

D. Threshold comparator

Q12 **CORRECT** 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

Q13 **CORRECT** 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

Q14 **INCORRECT** What is the difference of Colpitts oscillator compare to Hartley oscillator?

A. Uses split inductor

B. Uses split capacitor

C. Uses crystal oscillator

D. Uses SCR combination

Q15 **CORRECT** Which circuit is determined by the frequency of LC tank circuit?

A. Oscillator

B. Amplifier

C. Multiplexed

D. Demodulator

Q16 **CORRECT** 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

Q17 **CORRECT** 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

Q18 **CORRECT** Which circuits commonly use parallel-fed Hartley oscillators?

A. Stereo amplifiers

B. Radio receivers

C. Television receivers

D. Automatic voltage stabilizers

Q19 **INCORRECT** What type of arrangement is required to sustain the oscillations of the oscillator circuit?

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

Q20 **CORRECT** 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

Q21 **INCORRECT** How to improve the frequency stability in oscillator circuits?

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

Q22 **CORRECT** 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

**Q23** **INCORRECT** 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

**Q24** **CORRECT** Which component filter the ripples in the rectifier circuit?

**A.** DIAC

**B.** Diode

**C.** TRIAC

**D.** Capacitor

**Q25** **CORRECT** Which parameter is maintained constant in zener diode?

**A.** Power

**B.** Current

**C.** Voltage

**D.** Resistance