

# Sri Mahalingeswara ITI

## TEST - 07/ MAR-2026

Q. ID: ITISKILL0082JL | March 2026

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|--------------|-----|-----------------|----------|
| Student Name | Gh  | Access Code     | 6351     |
| Attempt No.  | #1  | Completion Time | 10:55 AM |
| Rank         | #75 | Total Questions | 25       |

6 SCORE

25 MAX MARKS

6 CORRECT

19 INCORRECT

### Answer Review

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

A. Volts

B. Hertz

C. Ampere

D. Coulomb ☒

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

A. Insulators ☒

B. Conductors

C. Semiconductors ☐

D. Intrinsic semiconductors

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

A. Gallium

B. Porcelain ☒

C. Aluminium ☐

D. Germanium

**Q4** **INCORRECT** 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<sup>2</sup>R 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** **INCORRECT** 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** **INCORRECT** 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** **CORRECT** 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** **INCORRECT** Which circuit is determined by the frequency of LC tank circuit?

**A.** Oscillator ☐

**B.** Amplifier

**C.** Multiplexed

**D.** Demodulator ☐

**Q16** **INCORRECT** 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** **INCORRECT** 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** **INCORRECT** Which circuits commonly use parallel-fed Hartley oscillators?

**A.** Stereo amplifiers ☐

**B.** Radio receivers ☐

**C.** Television receivers

**D.** Automatic voltage stabilizers

**Q19** **CORRECT** 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** **INCORRECT** 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** **INCORRECT** 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** **INCORRECT** 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 ☐