

# Sri Mahalingeswara ITI

## TEST - 07/ MAR-2026

Q. ID: ITISKILL0082JL | March 2026

16.00% 4 / 25

|              |          |                 |          |
|--------------|----------|-----------------|----------|
| Student Name | Abhishek | Access Code     | 7674     |
| Attempt No.  | #3       | Completion Time | 02:09 PM |
| Rank         | #86      | Total Questions | 25       |

4 SCORE

25 MAX MARKS

4 CORRECT

21 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** **CORRECT** 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** **INCORRECT** 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** **CORRECT** 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** **INCORRECT** 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** **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** **INCORRECT** 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** **INCORRECT** How many time constants required to charge 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** **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** **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** **INCORRECT** Which parameter is maintained constant in zener diode?

- A.** Power ☐
- B.** Current ☐
- C.** Voltage ☒
- D.** Resistance ☐