

Sri Mahalingeswara ITI

TEST - 07/ MAR-2026

Q. ID: ITISKILL0082JL | March 2026

68.00% 17 / 25

Student Name	Dhanush Gowda HA	Access Code	9463
Attempt No.	#1	Completion Time	10:29 AM
Rank	#28	Total Questions	25

17 SCORE

25 MAX MARKS

17 CORRECT

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

A. 12%

B. 25%

C. 27% ☒

D. 40%

Q7 **CORRECT** 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 **CORRECT** 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 **CORRECT** 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 **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 **CORRECT** 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 **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 **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 **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