

Student Name: _____	Roll No: _____
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1. What is the name of the ratio of ON-time pulse to the OFF-time pulse of multivibrator?

- A) Threshold comparator
- B) Pulse repetition
- C) Pulse repetition
- D) Control voltage

2. Why the load testing is done on the lead-acid battery?

- A) Verify the rated power delivery
- B) Test the dimensional accuracy
- C) Measure the rated output voltage
- D) Test I²R power loss in the battery cell

3. Which material contains eight electrons in valency layer?

- A) Insulators
- B) Semiconductors
- C) Intrinsic semiconductors
- D) Conductors

4. Which method is adopted to charge a car battery with voltage rating of 2.3 V per cell?

- A) Constant voltage charging method
- B) Trickle charging method
- C) Float charging method
- D) Constant current charging method

5. How to overcome the problem of frequency drift in LC oscillators?

- A) Apply opposite polarity of signal
- B) Using high Q coils and good quality capacitors
- C) Increase the supply voltage
- D) Provide negative feedback

6. Which material is used as electrical insulator?

- A) Gallium
- B) Aluminium
- C) Porcelain
- D) Germanium

7. Which energy is converted by the battery to produce electricity?

- A) Chemical energy into electrical energy
- B) Mechanical energy into electrical energy
- C) Electrical energy into light energy
- D) Electrical energy into mechanical energy

8. How many time constants required to charge a capacitor to 63.2% of its full charge voltage?

- A) One time constant
- B) Three time constant
- C) Two time constant
- D) Four time constant

9. Why LC tuned circuits are not used in audio frequency oscillators?

- A) LC components are not available
- B) LC values required is too large
- C) LC tank circuit operation requires high voltage
- D) LC tank circuit does not produce AF signals

10. What type of arrangement is required to sustain the oscillations of the oscillator circuit?

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

11. How the single strand wire is called?

- A) Twisted wire
- B) Multi strand wire
- C) Hook up wire
- D) Flexible wire

12. Which parameter is maintained constant in zener diode?

- A) Resistance
- B) Voltage
- C) Current
- D) Power

13. What is the percentage of charge accumulated by the capacitor at the end of 2 time constant limit?

- A) 0.5
- B) 0.632
- C) 0.864
- D) 0.4

14. What is the resonant frequency range of a crystal?

- A) Between 0.1 and 1MHz
- B) Between 0.5 and 30 MHz
- C) Between 0.1 and 10 MHz
- D) Between 0.5 and 25 MHz

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

- A) Cube shape with pyramid at ends
- B) Hexagonal prism with pyramid at ends
- C) Pentagonal prism with pyramid at ends
- D) Cylindrical shape with pyramid at ends

16. What is the unit of electric charge?

- A) Volts
- C) Hertz

- B) Coulomb
- D) Ampere

17. How to improve the frequency stability in oscillator circuits?

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

18. What type of feed back is used by the Wein-bridge oscillator to oscillate the signal?

- A) Negative feedback
- C) No feedback
- B) Both positive and negative feedback
- D) Positive feedback

19. Which is the 3 terminal, negative voltage regulator IC?

- A) IC 7812
- C) LM 340
- B) IC 7905
- D) LM 320

20. What is the percentage of sulphuric acid in electrolyte used for lead-acid batteries?

- A) 27%
- C) 25%
- B) 40%
- D) 12%

21. What is the difference of Colpitts oscillator compare to Hartley oscillator?

- A) Uses split inductor
- C) Uses SCR combination
- B) Uses split capacitor
- D) Uses crystal oscillator

22. Which circuit is determined by the frequency of LC tank circuit?

- A) Multiplexed
- C) Amplifier
- B) Oscillator
- D) Demodulator

23. Which component filter the ripples in the rectifier circuit?

- A) DIAC
- C) Capacitor
- B) TRIAC
- D) Diode

24. Which circuits commonly use parallel-fed Hartley oscillators?

- A) Radio receivers
- C) Automatic voltage stabilizers
- B) Television receivers
- D) Stereo amplifiers

25. What is the expansion of PRF related to frequency?

- A) Power regulated frequency
- C) Pulse repetition frequency
- B) Pulse probability frequency
- D) Pulse repetition frequency