

**Duration: 60 Mins**

**Total Marks: 27**

**Q.ID: ITISKILL23045H**

1. Which battery is made from non-toxic materials?

- A) Nickel metal hydride (NiMH)      B) Lithium polymer (Li-Poly)  
 C) Lithium ion (Li-Ion)      D) Nickel cadmium (Nicad)

**Answer: A) Nickel metal hydride (NiMH)**

2. 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) Constant current charging method      D) Float charging method

**Answer: A) Constant voltage charging method**

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

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

**Answer: A) Measure the rated output voltage**

4. How batteries are classified?

- A) Primary cells and secondary cells      B) Button cells and lithium cells  
 C) Dry cells and alkaline cells      D) Cylindrical cells and rectangular cells

**Answer: A) Primary cells and secondary cells**

5. What is the range of current rating of lead acid batteries used in automobiles?

- A) 2.5 to 4.5 Amp      B) 100 to 400 Amp  
 C) 5 to 10 Amp      D) 10 to 25 Amp

**Answer: B) 100 to 400 Amp**

6. What is the colour of positive electrode in fully charged lead acid battery?

- A) Spongy grey colour      B) Reddish brown  
 C) Red colour      D) Grey colour

**Answer: B) Reddish brown**

7. What is the name of the process to maintain the recommended level of electrolyte in lead-acid battery cell?

- A) Charging the cell      B) Recharging  
 C) Cycling of the cell      D) Topping up

**Answer: D) Topping up**

8. Which electrolyte is used in lead-acid battery?

- A) Sulphuric acid      B) Alkaline solution  
 C) Potassium hydroxide solution      D) Zinc chloride

**Answer: A) Sulphuric acid**

9. What is the lowest voltage level of discharging the lead-acid battery?

- A) 1.85 V      B) 1.5 V  
 C) 1.2 V      D) 1.7 V

**Answer: D) 1.7 V**

10. What is the total voltage of six 1.5 V cells, connected in series?

- A) 12 VDC      B) 9 VDC  
 C) 6 VDC      D) 3 VDC

**Answer: B) 9 VDC**

11. What is the use of battery analyzers with rapid-test program?

- A) Test the charging current of battery      B) Test the battery life  
 C) Indicate the health condition of battery      D) Test the load current delivered

**Answer: C) Indicate the health condition of battery**

12. How batteries are classified based on their working?

- A) Cylindrical cells and rectangular cells      B) Button cells and lithium cells  
 C) Primary cells and secondary cells      D) Dry cells and alkaline cells

**Answer: C) Primary cells and secondary cells**

13. What is the rated output voltage of a silver oxide cell?

- A) 1.5 VDC      B) 4.0 VDC  
 C) 2.5 VDC      D) 1.0 VDC

**Answer: A) 1.5 VDC**

14. Which material is used for negative terminal of alkaline manganese dioxide batteries?

- A) Nickel hydroxide      B) Zinc  
 C) Cadmium      D) Lithium

**Answer: B) Zinc**

15. Which device is used to test the fully charged condition

of a lead acid battery cell?

- A) Multimeter
- B) High rate discharge tester
- C) DC voltmeter
- D) Hydrometer

**Answer: B) High rate discharge tester**

**16.** Which battery is used for cellular phones?

- A) Lithium ion
- B) Zinc chloride
- C) Nickel ion
- D) Sodium sulphur

**Answer: A) Lithium ion**

**17.** What is the electrolyte level maintained above the top of the plates in lead acid battery cells?

- A) 10 mm to 15 mm
- B) 5 mm to 8 mm
- C) 16 mm to 25 mm
- D) 2 mm to 4 mm

**Answer: A) 10 mm to 15 mm**

**18.** Which electrolyte is used in maintenance free lead acid batteries?

- A) Potassium electrolyte
- B) Ceramic electrolyte
- C) Gelled electrolyte
- D) Sodium electrolyte

**Answer: C) Gelled electrolyte**

**19.** What is the rated voltage of a single cell in lead acid battery?

- A) 2.0 V
- B) 2.2 V
- C) 1.5 V
- D) 12 V

**Answer: B) 2.2 V**

**20.** What is the unit of electric charge?

- A) Volts
- B) Hertz
- C) Ampere
- D) Coulomb

**Answer: D) Coulomb**

**21.** What is the effect on a secondary cell supplying current to the load?

- A) Discharging
- B) Unloading
- C) Charging
- D) Leaking

**Answer: A) Discharging**

**22.** What is the name of the pair of metal strips used in battery cell?

- A) Electrolyte
- B) Electrodes
- C) Cathode
- D) Carbon rod

**Answer: B) Electrodes**

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

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

**Answer: D) Chemical energy into electrical energy**

**24.** Which rechargeable cell is designed with conductive polymer?

- A) Lead acid cell
- B) Nickel metal hydride cell
- C) Gelled electrolyte lead acid cell
- D) Plastic cell

**Answer: D) Plastic cell**

**25.** What is the specific gravity of concentrated sulphuric acid?

- A) 1.945
- B) 1.245
- C) 1.835
- D) 1.175

**Answer: C) 1.835**

**26.** Which is the additional percentage of power delivered by the lithium ion compared to NiMH battery?

- A) 25%
- B) 60%
- C) 40%
- D) 0.15

**Answer: C) 40%**

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

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

**Answer: A) 27%**