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Sri Mahalingeswara ITI

Answer Key

Duration: 30 Mins

Total Marks: 27

Q.ID: ITISKILL91341W

1. Which is the additional percentage of power delivered by the lithium Ion compared to NiMH battery?

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

Answer: A) 40%

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

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

Answer: D) Discharging

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

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

Answer: C) Electrodes

4. What is the unit of electric charge?

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

Answer: A) Coulomb

5. How batteries are classified based on their working?

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

Answer: D) Primary cells and secondary cells

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

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

Answer: A) Nickel metal hydride (NiMH)

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

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

Answer: D) 1.7 V

8. Which battery is used for cellular phones?

- A) Nickel ion B) Sodium sulphur

C) Zinc chloride

D) Lithium ion

Answer: D) Lithium ion

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

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

Answer: B) Topping up

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

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

Answer: B) Sulphuric acid

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

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

Answer: C) Chemical energy into electrical energy

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

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

Answer: C) Constant voltage charging method

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

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

Answer: D) 9 VDC

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

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

Answer: B) 1.5 VDC

15. What is the specific gravity of concentrated sulphuric acid?

- A) 1.245 B) 1.945

C) 1.835

D) 1.175

Answer: C) 1.835

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

A) Zinc

B) Cadmium

C) Nickel hydroxide

D) Lithium

Answer: A) Zinc

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

A) Spongy grey colour

B) Red colour

C) Reddish brown

D) Grey colour

Answer: C) Reddish brown

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

A) 25%

B) 40%

C) 27%

D) 12%

Answer: C) 27%

19. Which rechargeable cell is designed with conductive polymer?

A) Gelled electrolyte lead acid cell

B) Plastic cell

C) Nickel metal hydride cell

D) Lead acid cell

Answer: B) Plastic cell

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

A) Test the battery life

B) Test the load current delivered

C) Test the charging current of battery

D) Indicate the health condition of battery

Answer: D) Indicate the health condition of battery

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

A) Gelled electrolyte

B) Potassium electrolyte

C) Sodium electrolyte

D) Ceramic electrolyte

Answer: A) Gelled electrolyte

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

A) 5 mm to 8 mm

B) 10 mm to 15 mm

C) 16 mm to 25 mm

D) 2 mm to 4 mm

Answer: B) 10 mm to 15 mm

23. How batteries are classified?

A) Primary cells and secondary cells

B) Dry cells and alkaline cells

C) Cylindrical cells and rectangular cells

D) Button cells and lithium cells

Answer: A) Primary cells and secondary cells

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

A) 1.5 V

B) 2.0 V

C) 2.2 V

D) 12 V

Answer: C) 2.2 V

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

A) 10 to 25 Amp

B) 5 to 10 Amp

C) 2.5 to 4.5 Amp

D) 100 to 400 Amp

Answer: D) 100 to 400 Amp

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

A) Test the dimensional accuracy

B) Measure the rated output voltage

C) Verify the rated power delivery

D) Test I²R power loss in the battery cell

Answer: B) Measure the rated output voltage

27. Which device is used to test the fully charged condition of a lead acid battery cell?

A) DC voltmeter

B) High rate discharge tester

C) Multimeter

D) Hydrometer

Answer: B) High rate discharge tester