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Score: 23/27 (85.19%)

Code: 1913

1. What is the name of the pair of metal strips used in battery cell?
 A) Cathode B) Electrolyte
C) Electrodes (Correct) D) Carbon rod

2. Which electrolyte is used in lead-acid battery?
 A) Zinc chloride **B) Sulphuric acid (Correct)**
 C) Alkaline solution D) Potassium hydroxide solution

3. How batteries are classified?
 A) Dry cells and alkaline cells B) Button cells and lithium cells
C) Primary cells and secondary cells (Correct) D) Cylindrical cells and rectangular cells

4. What is the rated output voltage of a silver oxide cell?
 A) 1.0 VDC **B) 1.5 VDC (Correct)**
 C) 2.5 VDC D) 4.0 VDC

5. Which battery is used for cellular phones?
 A) Nickel ion **B) Lithium ion (Correct)**
 C) Zinc chloride D) Sodium sulphur

6. Which material is used for negative terminal of alkaline manganese dioxide batteries?
A) Zinc (Correct) B) Lithium
 C) Cadmium D) Nickel hydroxide

7. What is the unit of electric charge?
 A) Volts B) Hertz
 C) Ampere **D) Coulomb (Correct)**

8. How batteries are classified based on their working?
 A) Dry cells and alkaline cells B) Button cells and lithium cells
C) Primary cells and secondary cells (Correct) D) Cylindrical cells and rectangular cells

9. What is the rated voltage of a single cell in lead acid battery?
 A) 1.5 V B) 2.0 V (Incorrect)
C) 2.2 V D) 12 V

10. What is the range of current rating of lead acid batteries used in automobiles?
 A) 5 to 10 Amp B) 10 to 25 Amp
 C) 2.5 to 4.5 Amp **D) 100 to 400 Amp (Correct)**

11. What is the colour of positive electrode in fully charged lead acid battery?
 A) Red colour B) Grey colour
C) Reddish brown (Correct) D) Spongy grey colour

12. What is the specific gravity of concentrated sulphuric acid?
 A) 1.175 B) 1.245 (Incorrect)
C) 1.835 D) 1.945

13. Which energy is converted by the battery to produce electricity?
 A) Electrical energy into light energy **B) Chemical energy into electrical energy (Correct)**
 C) Mechanical energy into electrical energy D) Electrical energy into mechanical energy

14. What is the total voltage of six 1.5 V cells, connected in series?
 A) 3 VDC B) 6 VDC
C) 9 VDC (Correct) D) 12 VDC

15. Which electrolyte is used in maintenance free lead acid batteries?
A) Gelled electrolyte (Correct) B) Sodium electrolyte
 C) Ceramic electrolyte D) Potassium electrolyte

16. What is the effect on a secondary cell supplying current to the load?
 A) Leaking B) Charging
 C) Unloading **D) Discharging (Correct)**

17. What is the percentage of sulphuric acid in electrolyte used for lead-acid batteries?
 A) 12% B) 25%
C) 27% (Correct) D) 40%

18. What is the name of the process to maintain the

recommended level of electrolyte in lead-acid battery cell?

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

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

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

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

- A) 1.2 V
- B) 1.5 V
- C) **1.7 V (Correct)**
- D) 1.85 V

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

- A) 0.15
- B) 25%
- C) **40% (Correct)**
- D) 60%

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

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

23. Which rechargeable cell is designed with conductive polymer?

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

24. 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 (Correct)**

25. 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 (Correct)**

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

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

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

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