

Duration: 60 Mins**Total Marks: 20****Q.ID: ITISKILL5950WB****1. Which battery is made from non-toxic materials?**

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

Answer: D) Nickel metal hydride (NiMH)**2. Which is the additional percentage of power delivered by the lithium Ion compared to NiMH battery?**

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

Answer: B) 40%**3. Which battery is used for cellular phones?**

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

Answer: D) Lithium ion**4. How the performance of the amplifier designed using the simulation software is tested?**

- A) Using multimeter B) Using measuring equipments
 C) Using test and measuring equipments D) Using virtual instrumentation testing

Answer: D) Using virtual instrumentation testing**5. What is the unit of electric charge?**

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

Answer: B) Coulomb**6. What is the name of the pair of metal strips used in battery cell?**

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

Answer: C) Electrodes**7. What is the lowest voltage level of discharging the lead-acid battery?**

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

Answer: D) 1.7 V**8. How the circuit schematic drawn using the simulation software is tested?**

- A) Using multimeter B) Using analysis menu

- C) Using virtual oscilloscope D) Using external oscilloscope

Answer: B) Using analysis menu**9. What is the effect on a secondary cell supplying current to the load?**

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

Answer: A) Discharging**10. Which energy is converted by the battery to produce electricity?**

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

Answer: A) Chemical energy into electrical energy**11. What is the range of current rating of lead acid batteries used in automobiles?**

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

Answer: B) 100 to 400 Amp**12. 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 D) 16 mm to 25 mm

Answer: C) 10 mm to 15 mm**13. Which electrolyte is used in lead-acid battery?**

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

Answer: C) Sulphuric acid**14. What are the uses of simulation softwares?**

- A) Solder and desolder components B) Design a circuit
 C) Replace defective components D) Design and test a circuit

Answer: D) Design and test a circuit**15. What is the specific gravity of concentrated sulphuric acid?**

- A) 1.245 B) 1.945

C) 1.175

D) 1.835

Answer: D) 1.835

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

A) Topping up

B) Charging the cell

C) Recharging

D) Cycling of the cell

Answer: A) Topping up

17. How batteries are classified based on their working?

A) Dry cells and alkaline cells

B) Primary cells and secondary cells

C) Cylindrical cells and rectangular cells

D) Button cells and lithium cells

Answer: B) Primary cells and secondary cells

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

A) DC voltmeter

B) Hydrometer

C) High rate discharge tester

D) Multimeter

Answer: C) High rate discharge tester

19. How batteries are classified?

A) Cylindrical cells and rectangular cells

B) Dry cells and alkaline cells

C) Button cells and lithium cells

D) Primary cells and secondary cells

Answer: D) Primary cells and secondary cells

20. Which space is used to design circuit in schematic editor of the Tina software?

A) File operation space

B) Components type space

C) Circuit work space

D) Components groups space

Answer: C) Circuit work space
