

BASIC ELECTRICAL AND ELECTRONICS

Q. ID: ITISKILL282572

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Question Paper

Duration: 60 Mins

Total Marks: 41

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Student Name: _____ Roll No: _____

1. How the lead acid Battery is classified?

- A) Secondary cell
- B) Alkaline cell
- C) Dry cell
- D) Primary cell

2. How electrons move in a conductor?

- A) Resistance
- B) Current
- C) Voltage difference
- D) Conductance

3. What is the colour of positive plates in the charged lead - acid - battery?

- A) Brown
- B) White
- C) Black
- D) Grey

4. Which instrument is prohibited to connect with live wire?

- A) Voltmeter
- B) Wattmeter
- C) Ammeter
- D) Ohmmeter

5. What is the use of Ohmmeter in an electrical circuit?

- A) Measure the current
- B) Measure the resistance
- C) Measure the voltage
- D) Measure the power

6. Which measuring instrument used to measure the Ampere, volt and resistance?

- A) Energy meter
- B) Wattmeter
- C) Galvana meter
- D) Multi meter

7. What is the ampere hour rating if battery deliver 5 ampere and period of 20 hours?

- A) 110 Ampere hour
- B) 100 Ampere hour
- C) 80 Ampere hour
- D) 90 Ampere hour

8. What is the reason for fuse blown out in an electrical circuit?

- A) Open circuit
- B) Parallel circuit
- C) Series circuit
- D) Short circuit

9. Which is the Ohm's Mathematical Expression?

- A) $R=(I/V)$
- B) $I=(R/V)$
- C) $V=(I/R)$
- D) $I=(V/R)$

10. Which material is required to make integrated circuit chips?

- A) zinc
- B) steel
- C) silicon
- D) copper

11. Which is the semi conductor materials?

- A) Germanium and silicon
- B) Gallium and indium
- C) Aluminium and antimony
- D) Arsenic and boron

12. Which electronic component is used as a solid state switch?

- A) Capacitor
- B) Resistor
- C) Inductor
- D) Transistor

13. Which device have the ability to store electrical charge?

- A) Conductor
- B) Resistor
- C) Insulator
- D) Capacitor

14. How is the Battery capacity expressed?

- A) Ampere - hour rating
- B) Voltage - hour rating
- C) Ampere rating
- D) Voltage rating

15. What is the purpose of colour code in cables?

- A) Colour refers the current rating
- B) Colour refers the voltage rating
- C) Refers the size of the wire
- D) Easy identification of each circuit

16. Which type of the circuit has an infinite resistance?

- A) Short circuit
- B) Open circuit
- C) Parallel closed circuit
- D) Series closed circuit

17. Which cable is the thickest used in the automobile wiring?

- A) Head light cable
- B) Wiper motor cable
- C) Horn cable
- D) Starter motor cable

18. Which instrument is used to measure the electrical resistance?

- A) Ammeter
- B) Voltmeter

C) Wattmeter

D) Ohmmeter

19. Which component is used to measure the engine coolant temperature?

A) Transistor

B) Thermistor

C) Resistor

D) Diode

20. Which device used to step up the voltage in the spark ignition system?

A) Condenser

B) Spark plug

C) High Tension Cable

D) Ignition coil

21. What is the specific gravity reading range of half charged battery?

A) 1.200 - 1.230

B) 1.230 - 1.260

C) 1.260 - 1.280

D) 1.170 - 1.200

22. What does number 25 in the cable size (25/0.012) indicate?

A) Diameter of the strand

B) Length of the strand

C) Thickness of the cable

D) Number of the strand

23. What is the energy conversion of battery during discharge?

A) Electrical energy into chemical energy

B) Chemical energy into electrical energy

C) Electrical energy into mechanical energy

D) Electrical energy into heat energy

24. Which instrument is used to check the continuity of the field coils of DC motor?

A) Voltmeter

B) Wattmeter

C) Ohmmeter

D) Ammeter

25. How the number of positive and negative plates are compared in a lead acid Battery?

A) Positive plates is one more than negative plates

B) Negative plate is one less than positive plate

C) Positive plate is equal to the negative plate

D) Negative plate is one more than positive plates

26. What type of resistor is used in the vehicle flasher unit?

A) Film resistor

B) Integrated resistor

C) Printed resistor

D) Ballast resistor

27. What is the material of positive plate in the lead acid Battery?

A) Lead peroxide

B) Spongy lead

C) Antimony

D) Tin

28. What is the material of negative plate in the lead acid

Battery?

A) Antimony

B) Tin

C) Lead peroxide

D) Spongy lead

29. What is the energy conversion of battery during charging?

A) Electrical energy into mechanical energy

B) Electrical energy into chemical energy

C) Electrical energy into heat energy

D) Chemical energy into electrical energy

30. What is the permissible voltage drop in the electrical circuit?

A) 0.3 V

B) 0.4 V

C) 0.2 V

D) 0.1 V

31. What is the net resistance 'R' if 'R1' and 'R2' resistance are connected in series?

A) $R = R1/R2$

B) $R = R1 \times R2$

C) $R = R1 + R2$

D) $R = R1 \div R2$

32. Which is a temperature sensitive resistor?

A) Diode

B) Thermistor

C) Thyristor

D) Transistor

33. Which acid is used in the lead acid Battery?

A) Hydro bromic acid

B) Sulphuric acid

C) Hydro chloric acid

D) Nitric acid

34. Which law state that 'The current is directly proportional to the voltage and inversely proportional to the resistance'?

A) Hook's Law

B) Newton's Law

C) Ohm's Law

D) Boyle's Law

35. What is the specific gravity of fully charged battery?

A) 1.210 - 1.230

B) 1.260 - 1.280

C) 1.170 - 1.200

D) 1.240 - 1.250

36. Which shell electrons has least energy?

A) N shell electron

B) L shell electron

C) M shell electron

D) K shell electron

37. How many cells are in the 12V Battery?

A) 2 cells

B) 6 cells

C) 9 cells

D) 12 cells

38. What is the advantage of free maintenance sealed battery?

A) No need for recharging of battery

B) No chance for sulphation of battery terminals

- C) No need for check and top up distilled water. D) No need for disconnect the terminals to remove battery
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39. What type of emf is produced if the conductor moved and cut the magnetic field?

- A) Electro-chemical induced emf B) Dynamically induced emf
C) Statistically induced emf D) Electro-magnetic induced emf
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40. How the semi conductor material can be identified with atomic structure?

- A) Four electrons in the outer most orbit B) Two electrons in the outer most orbit
C) Five electrons in the outer most orbit D) Three electrons in the outer most orbit
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41. Which type of the circuit leads to hazard effect?

- A) Open circuit B) Parallel circuit
C) Series circuit D) Short circuit
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