

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 number of positive and negative plates are compared in a lead acid Battery?

- A) Negative plate is one less than positive plate
B) Positive plates is one more than negative plates
C) Positive plate is equal to the negative plate
D) Negative plate is one more than positive plates

2. Which is a temperature sensitive resistor?

- A) Thermistor
B) Transistor
C) Thyristor
D) Diode

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

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

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

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

5. How is the Battery capacity expressed?

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

6. Which is the semi conductor materials?

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

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

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

8. Which type of the circuit leads to hazard effect?

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

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

- A) Colour refers the current rating
B) Colour refers the voltage rating

- C) Easy identification of each circuit
D) Refers the size of the wire

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

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

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

- A) 9 cells
B) 2 cells
C) 6 cells
D) 12 cells

12. Which is the Ohm's Mathemetical Expression?

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

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

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

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

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

15. How the lead acid Battery is classified?

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

16. What is the permissable voltage drop in the electrical circuit?

- A) 0.3 V
B) 0.2 V
C) 0.1 V
D) 0.4 V

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

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

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

- A) Series circuit
- C) Parallel circuit

- B) Short circuit
- D) Open circuit

- A) 1.170 - 1.200
- C) 1.210 - 1.230

- B) 1.240 - 1.250
- D) 1.260 - 1.280

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

- A) Electrical energy into mechanical energy
- C) Electrical energy into chemical energy
- B) Electrical energy into heat energy
- D) Chemical energy into electrical energy

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

- A) Electrical energy into heat energy
- C) Electrical energy into chemical energy
- B) Chemical energy into electrical energy
- D) Electrical energy into mechanical energy

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

- A) No need for recharging of battery
- C) No chance for sulphation of battery terminals
- B) No need for disconnect the terminals to remove battery
- D) No need for check and top up distilled water.

30. What type of emf is produced if the conductor moved and cut the magnetic field?

- A) Dynamically induced emf
- C) Statistically induced emf
- B) Electro-chemical induced emf
- D) Electro-magnetic induced emf

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

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

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

- A) 1.200 - 1.230
- C) 1.170 - 1.200
- B) 1.230 - 1.260
- D) 1.260 - 1.280

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

- A) Tin
- C) Antimony
- B) Spongy lead
- D) Lead peroxide

32. How the semi conductor material can be identified with atomic structure?

- A) Four electrons in the outer most orbit
- C) Five electrons in the outer most orbit
- B) Three electrons in the outer most orbit
- D) Two electrons in the outer most orbit

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

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

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

- A) Ignition coil
- C) Spark plug
- B) High Tension Cable
- D) Condenser

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

- A) Hydro bromic acid
- C) Nitric acid
- B) Hydro chloric acid
- D) Sulphuric acid

34. Which shell electrons has least energy?

- A) N shell electron
- C) K shell electron
- B) M shell electron
- D) L shell electron

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

- A) Ballast resistor
- C) Integrated resistor
- B) Film resistor
- D) Printed resistor

35. How electrons move in a conductor?

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

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

- A) Hook's Law
- C) Boyle's Law
- B) Ohm's Law
- D) Newton's Law

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

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

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

- A) Thickness of the cable
- C) Number of the strand
- B) Length of the strand
- D) Diameter of the strand

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

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

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

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

A) $R = R1/R2$

B) $R = R1 + R2$

C) $R = R1 \cdot R2$

D) $R = R1 \times R2$

39. What is the material of negative plate in the lead acid Battery?

A) Tin

B) Antimony

C) Lead peroxide

D) Spongy lead

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

A) Ammeter

B) Ohmmeter

C) Voltmeter

D) Wattmeter

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

A) Resistor

B) Thermistor

C) Diode

D) Transistor
