

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. Which device have the ability to store electrical charge?

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

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

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

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

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

4. How electrons move in a conductor?

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

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

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

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

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

7. How is the Battery capacity expressed?

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

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

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

9. Which shell electrons has least energy?

- A) M shell electron
- B) L shell electron

C) K shell electron

D) N shell electron

10. 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 heat energy
- D) Electrical energy into mechanical energy

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

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

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

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

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

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

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

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

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

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

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

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

17. Which is the Ohm's Mathematical Expression?

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

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

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

19. Which is the semi conductor materials?

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

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

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

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

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

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

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

23. How the lead acid Battery is classified?

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

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

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

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

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

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

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

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

- A) Wiper motor cable B) Head light cable

- C) Horn cable D) Starter motor cable

28. 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

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

- A) 1.170 - 1.200 B) 1.240 - 1.250
C) 1.210 - 1.230 D) 1.260 - 1.280

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

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

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

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

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

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

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

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

34. Which is a temperature sensitive resistor?

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

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

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

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

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

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

- A) $R = R1 \times R2$ B) $R = R1/R2$
C) $R = R1 + R2$ D) $R = R1 ? R2$

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

- A) 2 cells
 - B) 12 cells
 - C) 9 cells
 - D) 6 cells
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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) Electro-magnetic induced emf
 - D) Statistically induced emf
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40. Which electronic component is used as a solid state switch?

- A) Resistor
 - B) Transistor
 - C) Inductor
 - D) Capacitor
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41. What is the material of positive plate in the lead acid Battery?

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