



Selvam College of Technology



An Autonomous Institution

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An ISO 9001:2015 Certified Institution, Approved by AICTE New Delhi, Affiliated to Anna University-Chennai
PONNUSAMY NAGAR, SALEM ROAD(NH-44), NAMAKKAL-637003. TAMILNADU.
Mobile: 9942099122, 9942099109, Web: www.selvamtech.edu.in

Name of the Bundle	Advanced Bundle V1	Subject	Competitive Exams Training (Science)
Topic	Electricity	Last updated on	08 August 2024

1) What is the SI unit of electric charge?

- a) Volt
- b) Coulomb
- c) Ampere
- d) ohm

Ans: b) Coulomb

2) An electron possesses a negative charge of:

- a) $16 * 10^{-19} \text{ C}$
- b) $1.60 * 10^{-19} \text{ C}$
- c) $26 * 10^{-19} \text{ C}$
- d) $1.8 * 10^{-19} \text{ C}$

Ans: b) $1.60 * 10^{-19} \text{ C}$

3) How many electrons taken together make one coulomb?

- a) $6.25 * 10^{18}$ electrons
- b) $3.25 * 10^{18}$ electrons
- c) $2.25 * 10^{18}$ electrons
- d) $4.25 * 10^{18}$ electrons

Ans: a) $6.25 * 10^{18}$ electrons

4) Which of the following is a conductor of electricity?

- a) Silver
- b) Copper
- c) Aluminium
- d) All of the above

Ans: d) All of the above

5) Substances through which electricity cannot flow are called:

- a) Conductors
- b) Insulators
- c) Wires
- d) Battery

Ans: b) Insulators

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6) Which of the following is an insulator?

- a) Carbon
- b) Rubber
- c) Silver
- d) Copper

Ans: b) Rubber

7) Which of the following is an example of static electricity?

- a) Glass rod rubbed with silk cloth
- b) Ebonite rod rubbed with wool
- c) Lightning in the sky
- d) All of the above

Ans: d) All of the above

8) What is the work done in moving a unit positive charge from infinity to that point in an electric field called?

- a) Electric potential
- b) Potential difference
- c) Electric current
- d) Electric circuits

Ans: a) Electric potential

9) What is the SI unit of resistance?

- a) Volt
- b) Watt
- c) Ohm
- d) Metre

Ans: c) Ohm

10) The resistance of a conductor depends on its:

- a) Length
- b) Nature of material
- c) Thickness
- d) All of the above

Ans: d) All of the above

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11) Current is inversely proportional to:

- a) Potential difference
- b) Resistance
- c) Voltage
- d) Electric power

Ans: b) Resistance

12) What is the formula for calculating current?

- a) $I = V * R$
- b) $I = V + R$
- c) $I = V - R$
- d) $I = V/R$

Ans: d) $I=V/R$

13) The law which gives relationship between current and potential difference is called:

- a) Ohm's law
- b) Ampere's law
- c) Biot-Savart law
- d) Coulomb's law

Ans: a) Ohm's law

14) Which of the following is a current-detecting instrument?

- a) Voltmeter
- b) Ammeter
- c) Magnetometer
- d) Galvanometer

Ans: d) Galvanometer

15) Which of the following is a part of an electrical circuit?

- a) Battery
- b) Fixed resistance
- c) Connecting wires
- d) All of the above

Ans: d) All of the above

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16) A continuous conducting path consisting of wires and other resistances and a switch, between the two terminals of a battery along which an electric current flows is called:

- a) Resistivity
- b) Circuit
- c) Electric power
- d) Insulator

Ans: b) Circuit

17) When Electric current flows through a wire it behaves like a

- a) Amplifier
- b) Conductor
- c) Magnet
- d) None of the above

Ans: c) Magnet

18) Which of the following is not an invention of Thomas Alva Edison

- i) Electric bulb
 - ii) Gramophone
 - iii) Motion picture camera
- a) i only
 - b) ii only
 - c) iii only
 - d) All of the above

Ans: d) All of the above

19) A Battery is a device that stores chemical energy and converts it to _____.

- a) Electrical energy
- b) Ammeter
- c) Voltmeter
- d) Both b and c

Ans: a) Electrical energy

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20) When current is switched on in a room heater, _____ is converted into _____.

- a) Electric energy, heat energy
- b) Electric energy, light energy
- c) Heat energy, Light energy
- d) Heat energy, electric energy

Ans: a) Electric energy, heat energy

21) In SI Units, the unit of current is

- a) ampere
- b) Candele
- c) Decibel
- d) newton

Ans: a) ampere

22) The rate of flow of electric charge is called

- a) electric current
- b) light
- c) sound
- d) force

Ans: a) electric current

23) Which of the following about ohm's law is true

- i) $V=RI$
- ii) $V=R/I$

Select the correct answer for the following options:

- a) i only
- b) ii only
- c) Neither i nor ii
- d) Both i and ii

Ans: a) i only



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24) Which of the following is the commercial unit of electric power?

- a) Joule
- b) KWh
- c) Watt
- d) Ampere

Ans: b) KWh

25) What is the work done to move a unit charge from one point to another called as?

- a) Current
- b) Resistance
- c) Conductance
- d) Potential Difference

Ans: d) Potential Difference

26) Which of the following metals is mostly used for filaments of electric bulbs?

- a) Copper
- b) Silver
- c) Nickel
- d) Tungsten

Ans: d) Tungsten

27) What is the property of a conductor to resist the flow of charges known as?

- a) Conductance
- b) Conductivity
- c) Resistance
- d) Electric Potential

Ans: c) Resistance

28) Which one of the following is not a conductor of electricity?

- a) Vinegar
- b) Lime juice
- c) Salt water
- d) Distilled water

Ans: d) Distilled water

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29) Which of the following is Not based on the heating effect of current?

- a) Electric heater
- b) Electric bulb(with filament)
- c) Electric iron
- d) Microwave

Ans: d) Microwave

30) Fuse wire used in electric instruments is made up of _____.

- a) Pure zinc
- b) Pure lead
- c) Alloy of lead and tin
- d) None of the above

Ans: c) Alloy of lead and tin

31) A device used for converting AC into DC is called _____.

- a) Transformer
- b) Rectifier
- c) Induction coil
- d) Dynamo

Ans: b) Rectifier

32) Electric wires are generally coated with:

- a) Polypropylene
- b) Polyvinyl chloride
- c) Polyurethane
- d) Polyethylene

Ans: b) Polyvinyl chloride

33) Superconductors are substances which

- a) conduct electricity at lower temperature
- b) offer high resistance to the flow of current
- c) offer no resistance to the flow of current
- d) conduct electricity at high temperature

Ans: c) offer no resistance to the flow of current

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34) The instrument _____ is used for detecting electric current.

- a) Galvanometer
- b) Tube tester
- c) Altimeter
- d) Volt meter

Ans: a) Galvanometer

35) An ammeter is connected in _____ with the circuit.

- a) parallel
- b) series
- c) both parallel and series
- d) None of the above

Ans: b) series

36) The SI unit of electrical conductance is _____.

- a) Ohm
- b) Siemens
- c) Ohm meter
- d) Ampere

Ans: b) Siemens

37) The poorest in electricity conductivity among the following metals is

- a) silver
- b) Copper
- c) Gold
- d) Aluminium

Ans: d) Aluminium

38) Voltmeter is connected in _____ with the circuit.

- a) parallel
- b) series
- c) both parallel and series
- d) None of the above

Ans: a) parallel

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39) Dynamo is used for the conversion of which of the following?

- a) High Voltage to Low Voltage
- b) Electrical energy to Mechanical energy
- c) Mechanical energy to Electrical energy
- d) Low Voltage to High Voltage

Ans: c) Mechanical energy to Electrical energy

40) The device which is used for converting chemical energy to electrical energy?

- a) Battery
- b) Motor
- c) Generator
- d) None of these

Ans: a) Battery

41) Which of the given is the best conductor of electricity?

- a) Copper
- b) Gold
- c) Aluminum
- d) Silver

Ans: d) Silver

42) When the electric current does not flow between two bodies, it means they have the same?

- a) Charge
- b) Resistivity
- c) Capacity
- d) Potential

Ans: d) Potential

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43) What is the temperature of the filament of the lighted electric bulb?

- a) 1000 – 2000C
- b) 2000C – 2500C
- c) 5000C – 10000C
- d) 10000C – 15000C

Ans: b) 2000C – 2500C

44) We often use a fuse in the main electrical supply for safety, why?

- a) Due to its low resistance and high melting point
- b) Due to its low resistance and low melting point
- c) Due to its high resistance and low melting point
- d) Due to its high resistance and high melting point

Ans: c) Due to its high resistance and low melting point

45) The filament of a halogen lamp is made up of which of the given options?

- a) Sodium and Iodine
- b) Tungsten and Iodine
- c) Tungsten and Bromine
- d) Tungsten and Sodium

Ans: d) Tungsten and Sodium

46) Which of the given gases filled in tube lights?

- a) Mercury vapor and Neon
- b) Mercury vapor and Argon
- c) Sodium vapor and Neon
- d) Sodium vapor and Argon

Ans: b) Mercury vapor and Argon

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47) Which of the following materials has the least resistivity?

- a) Zinc
- b) Lead
- c) Mercury
- d) Copper

Ans: d) Copper

48) Are the materials having electrical conductivity much less than most of the metals but much greater than that of typical insulators?

- a) Varistors
- b) Thermistor
- c) Semiconductors
- d) Variable resistors

Ans: c) Semiconductors

49) Nichrome wire is an alloy of _____.

- a) Lead and zinc
- b) Chromium and vanadium
- c) Nickel and chromium
- d) Copper and silver

Ans: c) Nickel and chromium

50) The S.I unit of power is

- a) Henry
- b) Coulomb
- c) Watt
- d) Watt-hour

Ans: c) Watt



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51) All good conductors have high

- a) Conductance
- b) Resistance
- c) Reluctance
- d) Thermal conductivity

Ans: a) Conductance

52) The substances which have a large number of free electrons and offer a low resistance are called

- a) Insulators
- b) Inductors
- c) Semiconductors
- d) Conductors

Ans: d) Conductors

53) Which one of the following is an insulator?

- a) Copper
- b) Wood
- c) Mercury
- d) Aluminium

Ans: b) Wood

54) 1 volt is equal to _____

- a) 1 joule
- b) 1 coulomb
- c) 1 watt
- d) 1 joule/1 coulomb

Ans: d) 1 joule/1 coulomb



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55) Which of the following is a semiconductor?

- a) Glass
- b) Silicon
- c) Wood
- d) Phosphorus

Ans: b) Silicon

56) Which of the following is the Super conductor?

- 1) Aluminium
- 2) magnesium diboride
- 3) copper oxide
- 4) paper

Select the correct answer from the following.

- a) 1 only
- b) 2 and 4 only
- c) 1 and 3 only
- d) 1,2 and 3

Ans: d) 1,2 and 3

57) 1 ampere is equal to _____.

- a) 1 coulomb
- b) 1 watt
- c) 1 volt
- d) 1 coulomb/ 1 second

Ans: d) 1 coulomb/1 second



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58) What is the S.I unit of Electric power?

- a) Watt
- b) Joule
- c) ampere
- d) Kilowatt/hour

Ans: a) Watt

59) 1 kwh is equal to _____.

- a) $3.6 * 10^6 J$
- b) $36 * 10^6 J$
- c) $36 * 10^{-6} J$
- d) $3.6 * 10^5 J$

Ans: a) $3.6 * 10^6 J$

60) Which of the following statements is/are correct about ohm's law?

- 1) The relationship between the potential difference across a conductor and the current through it.
- 2) $V=IR$ Where V-voltage, I- current and R- resistance

Select the correct option:

- a) 1 only
- b) 2 only
- c) both 1 and 2
- d) Neither 1 nor 2

Ans: c) both 1 and 2