

ECAT Physics Chapter 13 Current Electricity Online Test

Sr	Questions	Answers Choice
1	In gases, the charge carriers are:	A. Electrons B. Positive ions C. Negative ions D. Both A and C E. Both A and B
2	In a metal, the valence electrons are:	A. Attached to individual atoms B. Not attached to individual atoms C. Free to move within the metal D. Both A and B E. Both A and C
3	The value of resistivity is the least for:	A. Copper B. Aluminum C. Silver D. Tungsten E. Iron
4	The fourth band is a:	A. Silver band B. Red band C. Gold band D. Either A or C E. Either A or B
5	As the current flows through the wire	A. It generates heat in the wire B. It produces sound in the wire C. Resistance of the wire decrease D. Voltage across the ends is the increase E. None of these
6	The best conductor is:	A. Silver B. Copper C. Aluminum D. Both B and C E. None of them
7	A rheostat can e used:	A. As variable resistor B. As potential divider C. For varying the current D. All of these E. None of these
8	The third band of the colour code:	A. Gives the number of zeroes B. Is decimal multiplier C. Gives the resistance tolerance D. Gives the third digit E. Both (A) and (B)
9	Kirchhoff's first rule is also called:	A. Loop rule B. Thumb rule C. Point rule D. Right hand rule E. None of these
10	An ideal voltmeter has:	A. Zero resistance B. Small resistance C. Large resistance D. Infinite resistance E. Both A and B
11	Which instrument is expensive and difficult to use?	A. Voltmeter B. Potentiometer C. CRO D. Both A and C E. Both A and B
12	The quantity having the same unit as that of emf is:	A. Force B. Energy C. Potential D. Current E. Charge
13	The emf is measured in:	A. Newton B. Volt C. J/C

		D. Both A and B E. Both B and C
14	Thermistors are prepared under	A. High pressure and low temperature B. High pressure and high temperature C. Low pressure and low temperature D. Low pressure and high temperature E. None of these
15	A thermistor is a resistor which is:	A. Light Sensitive B. Heat Sensitive C. Sound Sensitive D. All of these E. None of these
16	Which of the following substances has got positive temperature coefficient of resistance?	A. Carbon B. Germanium C. Silicon D. Aluminium E. None of these
17	Most practical applications of electricity involve	A. Charges at rest B. Charges in motion C. Electrons at rest D. Atoms in motion E. Molecules in motion
18	The current that flows through the coil of a motor causes	A. Its shaft to revolve B. Its brushes to rotate C. Motor to move D. Its shaft to rotate E. None of these
19	SI unit of current describes the flow of charge at the rate of	A. One ampere per second B. One coulomb per second C. One electron per second D. 6.25×10^{18} electrons per second E. Both B and D
20	In case of metallic conductors, the charge carriers are	A. Protons B. Electrons C. Antiprotons D. Positrons E. Both A and B
21	The charge carriers in an electrolyte are	A. Positive ions B. Negative ions C. Either A or B D. Both A and B E. Neither A nor B
22	In case of metallic conductors, the charge carriers are	A. Protons B. Electrons C. Antiprotons D. Positrons E. Both A and B
23	The conventional current is the name given to current due to flow of	A. Positrons B. Positive charges C. Negative charges D. Both A and C E. None of these
24	A current of 1 ampere is passing through a conductor. The charge passing through it in half a minute s	A. One coulomb B. 0.5 coulomb C. 30 coulombs D. 2 coulombs E. None of these
25	The value of relative permittivity of different dielectrics are:	A. <p class="MsoNormal">Equal</p> B. <p class="MsoNormal">Different</p> C. <p class="MsoNormal">Greater than one</p> D. <p class="MsoNormal">Smaller than one</p> E. <p class="MsoNormal">Both (B) and (C)</p></p><p>A. <p class="MsoNormal">One</p></p></p></p></p></p>

26 Electric field lines emerge from the charge in:

- A. dimension<o:p></o:p></p>
B. <p class="MsoNormal">Two dimensions<o:p></o:p></p>
C. <p class="MsoNormal">Three dimensions<o:p></o:p></p>
D. <p class="MsoNormal">Four dimensions<o:p></o:p></p>
E. <p class="MsoNormal">None of them<o:p></o:p></p>
-

27 Field lines are closer to each other in the region where the field is:

- A. <p class="MsoNormal">Stronger<o:p></o:p></p>
B. <p class="MsoNormal">Weaker<o:p></o:p></p>
C. <p class="MsoNormal">Much weaker<o:p></o:p></p>
D. <p class="MsoNormal">Absent<o:p></o:p></p>
E. <p class="MsoNormal">None of these<o:p></o:p></p>
-

28 In case of two identical charges placed certain distance apart, the electric field lines are:

- A. <p class="MsoNormal">Straight lines<o:p></o:p></p>
B. <p class="MsoNormal">Sine curves<o:p></o:p></p>
C. <p class="MsoNormal">Curved<o:p></o:p></p>
D. <p class="MsoNormal">Both (A) and (B)<o:p></o:p></p>
E. <p class="MsoNormal">None of these<o:p></o:p></p>
-

29 Electrostatics is the branch of physics which deals with the study of electro charges:

- A. <p class="MsoNormal">At rest<o:p></o:p></p>
B. <p class="MsoNormal">At rest under the action of electric forces<o:p></o:p></p>
C. <p class="MsoNormal">In motion under the action of electric forces<o:p></o:p></p>
D. <p class="MsoNormal">In motion<o:p></o:p></p>
E. <p class="MsoNormal">At rest under the action of nuclear forces<o:p></o:p></p>
-

- A. <p class="MsoNormal">Electrons<o:p></o:p></p>
B. <p class="MsoNormal">Protons<o:p></o:p></p>

- 30 Static electricity is produced by the transfer of
- C. <p class="MsoNormal">One fluid<o:p></o:p></p>
D. <p class="MsoNormal">Two fluids<o:p></o:p></p>
E. <p class="MsoNormal">None of these<o:p></o:p></p>
-
- 31 Xerography means:
- A. <p class="MsoNormal">Dry writing<o:p></o:p></p>
B. Wet writing<p class="MsoNormal"><o:p></o:p></p>
C. <p class="MsoNormal">Poor writing<o:p></o:p></p>
D. <p class="MsoNormal">Excellent writing<o:p></o:p></p>
E. <p class="MsoNormal">Both (A) and (B)<o:p></o:p></p>
-
- 32 An example of photoconductor is:
- A. <p class="MsoNormal">Boron<o:p></o:p></p>
B. <p class="MsoNormal">Carbon<o:p></o:p></p>
C. <p class="MsoNormal">Iron<o:p></o:p></p>
D. <p class="MsoNormal">Aluminum<o:p></o:p></p>
E. <p class="MsoNormal">Selenium<o:p></o:p></p>
-
- 33 An important part of photocopier is:
- A. <p class="MsoNormal">Toner cartridge<o:p></o:p></p>
B. Deflection plates<p class="MsoNormal"><o:p></o:p></p>
C. <p class="MsoNormal">Charging electrode<o:p></o:p></p>
D. <p class="MsoNormal">Print head<o:p></o:p></p>
E. <p class="MsoNormal">None of these<o:p></o:p></p>
-
- A. <p class="MsoNormal">An insulator<o:p></o:p></p>
B. <p class="MsoNormal">A conductor<o:p></o:p></p>
C. <p class="MsoNormal"><span style="font-

34 Selenium is:

- A. Insulator in the dark and becomes conductor when exposed to light
- B. Conductor in the dark only
- C. None of these
-

35 Aluminum is a:

- A. Good insulator
- B. Bad conductor
- C. Both (A) and (B)
- D. Excellent conductor
- E. Semiconductor
-

36 The inkjet printer ejects a thin stream of:

- A. Water
- B. Oil
- C. Ink
- D. Any of above
- E. None of these
-

37 An important part of inkjet printer is:

- A. Toner
- B. Drum
- C. Deflection plates
- D. Heated roles
- E. None of these
-

38 An inkjet printer uses in its operation:

- A. Neutrons only
- B. Mesons only
- C. Protons and

43

Certain charge $+q$ is placed at the center of a sphere. At each of the sphere, The directions of electric intensity and vector area are:

size:12.0pt;line-height:107%;font-family: "Times New Roman","serif">All of these<o:p></o:p></p>
E. <p class="MsoNormal">None of these<o:p></o:p></p>

44

Flux through a closed surface of any shape and flux through the surface of a sphere drawn around a charge are:

A. <p class="MsoNormal">Same<o:p></o:p></p>
B. <p class="MsoNormal">Different<o:p></o:p></p>
C. <p class="MsoNormal">Opposite to each other<o:p></o:p></p>
D. <p class="MsoNormal">At 60° with each other<o:p></o:p></p>
E. <p class="MsoNormal">Both (B) and (C)<o:p></o:p></p>

A. <p class="MsoNormal">Different<o:p></o:p></p>

B. <p class="MsoNormal">Same<o:p></o:p></p>

C. <p class="MsoNormal">Such that it is greater in the first case<o:p></o:p></p>

D. <p class="MsoNormal">Such that it is greater in the second case<o:p></o:p></p>

E. <p class="MsoNormal">None of these<o:p></o:p></p>

45

The flux through a closed surface depends upon:

A. <p class="MsoNormal">Shape of geometry of the closed surface<o:p></o:p></p>

B. <p class="MsoNormal">Charge enclosed<o:p></o:p></p>

C. <p class="MsoNormal">Nature of the medium<o:p></o:p></p>

D. <p class="MsoNormal">Both (A) and (B)<o:p></o:p></p>

E. <p class="MsoNormal">Both (B) and (C)<o:p></o:p></p>

A. <p class="MsoNormal">Contain some magnitude of electric field<o:p></o:p></p>

B. <n class="MsoNormal"><span style="font-

46

The interior of a hollow charged metal sphere is a region which:

- C. <p class="MsoNormal">Is full of electric field lines<o:p></o:p></p>
- C. <p class="MsoNormal">Is field-free region<o:p></o:p></p>
- D. <p class="MsoNormal">Either (A) or (B)<o:p></o:p></p>
- E. <p class="MsoNormal">None of these<o:p></o:p>

47

While finding the electric intensity at a point between two oppositely charged parallel plates, the Gaussian surface is taken in the form of a hollow:

- A. <p class="MsoNormal">Circle<o:p></o:p></p>
- B. <p class="MsoNormal">Rectangle<o:p></o:p></p>
- C. <p class="MsoNormal">Sphere<o:p></o:p></p>
- D. <p class="MsoNormal">Box<o:p></o:p></p>
- E. <p class="MsoNormal">Cylinder<o:p></o:p></p>

48

A field free region is found:

- A. <p class="MsoNormal">Near the outer surface of a hollow charged metal sphere<o:p></o:p></p>
- B. <p class="MsoNormal">In the interior of solid metal uncharged sphere<o:p></o:p></p>
- C. <p class="MsoNormal">In the interior of solid metal charged sphere<o:p></o:p></p>
- D. <p class="MsoNormal">Both (A) and (B)<o:p></o:p></p>
- E. <p class="MsoNormal">Both (A) and (C)<o:p></o:p></p>

- A. <p class="MsoNormal"><span style="font-size:12.0pt;line-height:107%;font-family: "Times New Roman","serif";mso-fareast-font-

49

Gaussian surface is always:

- A. <p class="MsoNormal">Rectangular<o:p></o:p></p>
- B. <p class="MsoNormal">Spherical<o:p></o:p></p>
- C. <p class="MsoNormal">Cylindrical<o:p></o:p></p>
- D. <p class="MsoNormal">Box shape<o:p></o:p></p>
- E. <p class="MsoNormal">Any of these<o:p></o:p></p>

50

The surface destiny of charge is defined is:

- A. <p class="MsoNormal">Charge per volume<o:p></o:p></p>
- B. <p class="MsoNormal">Mass per volume<o:p></o:p></p>
- C. <p class="MsoNormal">Charge per area<o:p></o:p></p>
- D. <p class="MsoNormal">Mass per area<o:p></o:p></p>
- E. <p class="MsoNormal">Both (B) and (C)<o:p></o:p></p>

51

Tick the correct statement:

- A. <p class="MsoNormal">Both the potential and potential difference is scalars<o:p></o:p></p>
- B. <p class="MsoNormal">Potential is a scalar but potential difference is a vector<o:p></o:p></p>
- C. Both are vectors<p class="MsoNormal"><o:p></o:p></p>
- D. <p class="MsoNormal">Potential is vector but potential difference is scalar<o:p></o:p></p>
- E. <p class="MsoNormal"><o:p></o:p></p>

52 Another mean of electric potential energy per unit charge is given by:

family:"Times New Roman";mso-fareast-theme-font: minor-fareast">None of these<o:p></o:p></p>

- A. <p class="MsoNormal">Electric intensity<o:p></o:p></p>
- B. <p class="MsoNormal">Potential gradient<o:p></o:p></p>
- C. <p class="MsoNormal">Electric Flux<o:p></o:p></p>
- D. <p class="MsoNormal">Potential difference<o:p></o:p></p>
- E. <p class="MsoNormal">None of these<o:p></o:p></p>

53 The earth's potential and potential at infinity are taken:

- A. <p class="MsoNormal">Equal<o:p></o:p></p>
- B. <p class="MsoNormal">Zero<o:p></o:p></p>
- C. <p class="MsoNormal">First is greater than the second<o:p></o:p></p>
- D. <p class="MsoNormal">Second is greater than the first<o:p></o:p></p>
- E. <p class="MsoNormal">Both (A) and (B)<o:p></o:p></p>

54 An eV is unit of:

- A. <p class="MsoNormal">Potential<o:p></o:p></p>
- B. <p class="MsoNormal">Energy<o:p></o:p></p>
- C. <p class="MsoNormal">Work<o:p></o:p></p>
- D. <p class="MsoNormal">Power</p>
- E. <p class="MsoNormal">Both (B) and(C)<o:p></o:p></p>

55 Most practical application of electricity involve

- A. <p class="MsoNormal" style="text-align:justify">Charges at the rest<o:p></o:p></p>
- B. <p class="MsoNormal" style="text-align:justify">Charges in the motion<o:p></o:p></p>
- C. <p class="MsoNormal" style="text-align:justify">Electrons at rest<o:p></o:p></p>
- D. <p class="MsoNormal" style="text-align:justify">Atoms in motion<o:p></o:p></p>
- E. <p class="MsoNormal" style="text-align:justify">Molecules in motion<o:p></o:p></p>

56 The current that flows through the coil of a motor causes:

- A. <p class="MsoNormal" style="text-align:justify">Its shaft to revolve<o:p></o:p></p>
- B. <p class="MsoNormal" style="text-align:justify">Its brushes to rotate<o:p></o:p></p>
- C. <p class="MsoNormal" style="text-align:justify">Motor to move<o:p></o:p></p>
- D. <p class="MsoNormal" style="text-align:justify">Its shafts to rotate<o:p></o:p></p>
- E. <p class="MsoNormal" style="text-align:justify">None of these<o:p></o:p></p>

57 In case of metallic conductors, the charge carries are:

- A. <p class="MsoNormal" style="text-align:justify">Protons<o:p></o:p></p>
- B. <p class="MsoNormal" style="text-align:justify">Electrons<o:p></o:p></p>
- C. <p class="MsoNormal" style="text-align:justify">Antiprotons<o:p></o:p></p>
- D. <p class="MsoNormal" style="text-align:justify">Positrons<o:p></o:p></p>
- E. <p class="MsoNormal" style="text-align:justify">Both (A) and (B)<o:p></o:p></p>

- A. <p class="MsoNormal" style="text-align:justify">Positive ions<o:p></o:p></p>
- B. <p class="MsoNormal" style="text-align:justify">Negative ions<o:p></o:p></p>
- C. <p class="MsoNormal" style="text-align:justify">

- A. <p class="MsoNormal" style="text-align:justify">Either (A) or (B)</p></o:p></p>
- D. <p class="MsoNormal" style="text-align:justify">Both (A) and (B)</p></o:p></p>
- E. <p class="MsoNormal" style="text-align:justify">Neither (A) nor (B)</p></o:p></p>

In gases, the charge carriers are:

- A. <p class="MsoNormal" style="text-align:justify">Electrons</p></o:p></p>
- B. <p class="MsoNormal" style="text-align:justify">Positive ions</p></o:p></p>
- C. <p class="MsoNormal" style="text-align:justify">Negative ions</p></o:p></p>
- D. <p class="MsoNormal" style="text-align:justify">Both (A) and (C)</p></o:p></p>
- E. <p class="MsoNormal" style="text-align:justify">Both (A) and (B)<o:p></o:p></p>

The conventional current is the name given to current due to flow of:

- A. Positrons
- B. <p class="MsoNormal" style="text-align:justify">Positive charges<o:p></o:p></p>
- C. <p class="MsoNormal" style="text-align:justify">Negative charges</p></o:p></p>
- D. <p class="MsoNormal" style="text-align:justify">Both (A) and (C)</p></o:p></p>
- E. <p class="MsoNormal" style="text-align:justify">None of these</p></o:p></p>

The current of 1 ampere is passing through a conductor. The charge passing through it in half a minute is:

- A. <p class="MsoNormal" style="text-align:justify">One coulomb</p></o:p></p>
- B. <p class="MsoNormal" style="text-align:justify">0.5 coulomb</p></o:p></p>
- C. <p class="MsoNormal" style="text-align:justify">30 coulomb</p></o:p></p>
- D. <p class="MsoNormal" style="text-align:justify">2 coulombs</p></o:p></p>
- E. <p class="MsoNormal" style="text-align:justify">None of these</p></o:p></p>

62

The positive charge moving in one direction is equivalent in all external affects to a:

- A. <p class="MsoNormal" style="text-align:justify">Negative charge is moving in the same direction<o:p></o:p></p>
- B. <p class="MsoNormal" style="text-align:justify">Positive charge is moving in the opposite direction<o:p></o:p></p>
- C. <p class="MsoNormal" style="text-align:justify">Negative charge moving in the opposite direction<o:p></o:p></p>
- D. <p class="MsoNormal" style="text-align:justify">Positive charges moving in the same direction<o:p></o:p></p>
- E. <p class="MsoNormal" style="text-align:justify">None of these<o:p></o:p></p>

63

In a metal, the valence electrons are:

- A. <p class="MsoNormal" style="text-align:justify">Attach to individual atoms<o:p></o:p></p>
- B. <p class="MsoNormal" style="text-align:justify">Not attached to individual atoms<o:p></o:p></p>
- C. <p class="MsoNormal" style="text-align:justify">Free to move within the metal<o:p></o:p></p>
- D. <p class="MsoNormal" style="text-align:justify">Both (A) and (C)<o:p></o:p></p>
- E. <p class="MsoNormal" style="text-align:justify">Both (B) and (C)<o:p></o:p></p>

64

The free electrons in metals:

- A. <p class="MsoNormal" style="text-align:justify">Are in random motion and their speed depends upon temperature<o:p></o:p></p>
- B. <p class="MsoNormal" style="text-align:justify">Move in particular direction<o:p></o:p></p>
- C. <p class="MsoNormal" style="text-align:justify">Move with speed of light<o:p></o:p></p>
- D. <p class="MsoNormal" style="text-align:justify">Move such that their speed does not depend on their temperature<o:p></o:p></p>
- E. <p class="MsoNormal" style="text-align:justify">None of these<o:p></o:p></p>

- A. <p class="MsoNormal" style="text-align:justify">Greater than the speed at which they pass from left to right<o:p></o:p></p>
- B. <p class="MsoNormal" style="text-align:justify">None of these<o:p></o:p></p>

65

The rate at which the free electrons pass through any section of a metallic wire from right to left is:

- A. <p class="MsoNormal" style="text-align:justify">Less than the speed at which they pass from left to right</o:p></o:p></p>
- C. <p class="MsoNormal" style="text-align:justify">The same speed at which they pass from left to right<o:p></o:p></p>
- D. <p class="MsoNormal" style="text-align:justify">Any of above<o:p></o:p></p>
- E. <p class="MsoNormal" style="text-align:justify">None of them<o:p></o:p></p>

66

The rate at which the free electrons pass through any section of a metallic wire from right to left is:

- A. <p class="MsoNormal" style="text-align:justify">Greater than the speed at which they pass from left to right<o:p></o:p></p>
- B. <p class="MsoNormal" style="text-align:justify">Less than the speed at which they pass from left to right<o:p></o:p></p>
- C. <p class="MsoNormal" style="text-align:justify">The same speed at which they pass from left to right<o:p></o:p></p>
- D. <p class="MsoNormal" style="text-align:justify">Any of above<o:p></o:p></p>
- E. <p class="MsoNormal" style="text-align:justify">None of them<o:p></o:p></p>

67

If the ends of a wire are connected to a battery an electric field E will be set up at:

- A. <p class="MsoNormal" style="text-align:justify">The ends of the wire only<o:p></o:p></p>
- B. <p class="MsoNormal" style="text-align:justify">Mid points of the wire only<o:p></o:p></p>
- C. <p class="MsoNormal" style="text-align:justify">Every point within the wire<o:p></o:p></p>
- D. <p class="MsoNormal" style="text-align:justify">At nodes only<o:p></o:p></p>
- E. <p class="MsoNormal" style="text-align:justify">Both (B) and (D)<o:p></o:p></p>

68

The term drift velocity is used when the ends of a wire are:

- A. <p class="MsoNormal" style="text-align:justify">Connected to a laser source<o:p></o:p></p>
- B. <p class="MsoNormal" style="text-align:justify">Connected to a voltage source<o:p></o:p></p>
- C. <p class="MsoNormal" style="text-align:justify">Not connected to a voltage source<o:p></o:p></p>
- D. <p class="MsoNormal" style="text-align:justify">

69

When a constant potential difference is applied across the conductor, the drift velocity of electrons:

A. <p class="MsoNormal" style="text-align:justify">At different values of potential<o:p></o:p></p>
B. <p class="MsoNormal" style="text-align:justify">Both (B) and (D)<o:p></o:p></p>

C. <p class="MsoNormal" style="text-align:justify">Remains the constant<o:p></o:p></p>
D. <p class="MsoNormal" style="text-align:justify">Either of these<o:p></o:p></p>
E. <p class="MsoNormal" style="text-align:justify">None of these<o:p></o:p></p>

70

When a constant potential difference is applied across the conductor, the drift velocity of electrons:

A. <p class="MsoNormal" style="text-align:justify">Increases<o:p></o:p></p>
B. <p class="MsoNormal" style="text-align:justify">Decreases<o:p></o:p></p>
C. <p class="MsoNormal" style="text-align:justify">Remains the constant<o:p></o:p></p>
D. <p class="MsoNormal" style="text-align:justify">Either of these<o:p></o:p></p>
E. <p class="MsoNormal" style="text-align:justify">None of these<o:p></o:p></p>

71

When resistance of a current carrying wire increases due to rise in temperature, the drift velocity of electrons:

A. <p class="MsoNormal" style="text-align:justify">Decreases<o:p></o:p></p>
B. <p class="MsoNormal" style="text-align:justify">Increases<o:p></o:p></p>
C. <p class="MsoNormal" style="text-align:justify">Remains the constant<o:p></o:p></p>
D. <p class="MsoNormal" style="text-align:justify">Either of these<o:p></o:p></p>
E. <p class="MsoNormal" style="text-align:justify">None of these<o:p></o:p></p>

A. <p class="MsoNormal" style="text-align:justify">Zero<o:p></o:p></p>

72 The effects of bends in a wire on its electrical resistance are:

- A. <p class="MsoNormal" style="text-align:justify">Much larger<o:p></o:p></p>
- C. <p class="MsoNormal" style="text-align:justify">Larger<o:p></o:p></p>
- D. <p class="MsoNormal" style="text-align:justify">Smaller<o:p></o:p></p>
- E. <p class="MsoNormal" style="text-align:justify">None of these<o:p></o:p></p>

73 An electric field is generated along the wire when:

- A. <p class="MsoNormal" style="text-align:justify">Its resistance is very high<o:p></o:p></p>
- B. <p class="MsoNormal" style="text-align:justify">A constant potential is maintained across the wire<o:p></o:p></p>
- C. <p class="MsoNormal" style="text-align:justify">Net current through the wire is zero<o:p></o:p></p>
- D. <p class="MsoNormal" style="text-align:justify">A constant potential difference is maintained across the wire<o:p></o:p></p>
- E. <p class="MsoNormal" style="text-align:justify">Either (A) or (D)<o:p></o:p></p>

74 In order to have a constant current through wire, the potential difference across its end should:

- A. <p class="MsoNormal" style="text-align:justify">Be zero<o:p></o:p></p>
- B. <p class="MsoNormal" style="text-align:justify">Be maintained constant<o:p></o:p></p>
- C. <p class="MsoNormal" style="text-align:justify">Goes on increasing<o:p></o:p></p>
- D. <p class="MsoNormal" style="text-align:justify">Go on decreasing<o:p></o:p></p>
- E. <p class="MsoNormal" style="text-align:justify">Both (A) and (B)<o:p></o:p></p>

75 When two spherical conducting balls at different potentials are joined by a metallic wire, after some time:

- A. <p class="MsoNormal" style="text-align:justify">Both the conductors are at the same potential<o:p></o:p></p>
- B. <p class="MsoNormal" style="text-align:justify">Potential difference across the conductors remain constant<o:p></o:p></p>
- C. <p class="MsoNormal" style="text-align:justify">Potential difference across the conductors becomes zero<o:p></o:p></p>
- D. <p class="MsoNormal" style="text-align:justify">None of these<o:p></o:p></p>

76

When two spherical conducting balls at different potentials are joined by a metallic wire, after some time:

- D. <p class="MsoNormal" style="text-align:justify">Both (A) and (B)<o:p></o:p></p>
E. <p class="MsoNormal" style="text-align:justify">Both (A) and (C)<o:p></o:p></p>
-

77

The example/s of non-electrical energy to electrical is/are:

- A. <p class="MsoNormal" style="text-align:justify">Both the conductors are at the same potential<o:p></o:p></p>
B. <p class="MsoNormal" style="text-align:justify">Potential difference across the conductors remain constant<o:p></o:p></p>
C. <p class="MsoNormal" style="text-align:justify">Potential difference across the conductors becomes zero<o:p></o:p></p>
D. <p class="MsoNormal" style="text-align:justify">Both (A) and (B) and (C)<o:p></o:p></p>
E. <p class="MsoNormal" style="text-align:justify">Both (A) and (C)<o:p></o:p></p>
-
- A. <p class="MsoNormal" style="text-align:justify">Chemical energy<o:p></o:p></p>
B. <p class="MsoNormal" style="text-align:justify">Mechanical energy<o:p></o:p></p>
C. <p class="MsoNormal" style="text-align:justify">Heat energy<o:p></o:p></p>
D. <p class="MsoNormal" style="text-align:justify">Both (A) and (B)<o:p></o:p></p>
E. <p class="MsoNormal" style="text-align:justify">All of these<o:p></o:p></p>
-

78

Conversion of chemical energy to electrical energy can be achieved by:

- A. <p class="MsoNormal" style="text-align:justify">Primary cell<o:p></o:p></p>
B. <p class="MsoNormal" style="text-align:justify">Secondary cell<o:p></o:p></p>
C. <p class="MsoNormal" style="text-align:justify">Both (A) and (B)<o:p></o:p></p>
D. <p class="MsoNormal" style="text-align:justify">Photovoltaic cell<o:p></o:p></p>
E. <p class="MsoNormal" style="text-align:justify">Solar cell<o:p></o:p></p>
-
- A. <p class="MsoNormal" style="text-align:justify">

79 The device which can convert heat energy into electrical energy is called:

- A. <p class="MsoNormal" style="text-align:justify">Thermistor</o:p></o:p></p>
B. <p class="MsoNormal" style="text-align:justify">Thermometer</o:p></o:p></p>
C. <p class="MsoNormal" style="text-align:justify">Thermostat</o:p></o:p></p>
D. <p class="MsoNormal" style="text-align:justify">Thermocouple<o:p></o:p></p>
E. <p class="MsoNormal" style="text-align:justify">Both (C) and (D)</o:p></o:p></p>

80 When two spherical conducting balls at different potentials are joined by metallic wire, the current starts:

- A. <p class="MsoNormal" style="text-align:justify">Decreasing from zero to maximum</o:p></o:p></p>
B. <p class="MsoNormal" style="text-align:justify">Increasing from zero to maximum</o:p></o:p></p>
C. <p class="MsoNormal" style="text-align:justify">Decreasing from maximum to zero<o:p></o:p></p>
D. <p class="MsoNormal" style="text-align:justify">Increasing from maximum to zero</o:p></o:p></p>
E. Both (A) and (D)<p class="MsoNormal" style="text-align:justify"><o:p></o:p></p>

81 The obvious effect/s of current is/are:

- A. <p class="MsoNormal" style="text-align:justify">Heating effect</o:p></o:p></p>
B. <p class="MsoNormal" style="text-align:justify">Magnetic effect</o:p></o:p></p>
C. <p class="MsoNormal" style="text-align:justify">Chemical effect</o:p></o:p></p>
D. <p class="MsoNormal" style="text-align:justify">Both (C) and (B)</o:p></o:p></p>
E. <p class="MsoNormal" style="text-align:justify">All of these</p>

82 As the current flow through the wire:

- A. <p class="MsoNormal" style="text-align:justify">It generates heat in the wire<o:p></o:p></p>
B. <p class="MsoNormal" style="text-align:justify">It produces sound in the wire</o:p></o:p></p>
C. <p class="MsoNormal" style="text-align:justify">Both (A) and (B)</o:p></o:p></p>

83 Heating effect of current utilized in:

- A. Resistance of the wire decreases
- B. Voltage across the ends is increased
- C. None of these

84 The passage of current is accompanied by a magnetic field in the surrounding space:

- A. Always accompanied
- B. Sometimes accompanied
- C. Never accompanied
- D. Any of above
- E. None of these

85 The passage of current is accompanied by a magnetic field in the surrounding space:

- A. Always accompanied
- B. Sometimes accompanied
- C. Never accompanied
- D. Any of above
- E. None of these

- 86 The strength of magnetic field at certain points around a wire depends upon:
A. <p class="MsoNormal" style="text-align:justify">
Value of current passing<o:p></o:p></p>
B. <p class="MsoNormal" style="text-align:justify">
Distance from the current element<o:p></o:p></p>
C. <p class="MsoNormal" style="text-align:justify">
Color of the material<o:p></o:p></p>
D. <p class="MsoNormal" style="text-align:justify">
Both (A) and (B)<o:p></o:p></p>
E. <p class="MsoNormal" style="text-align:justify">
Both (B) and (C)<o:p></o:p></p>
-
- 87 Magnetic effect of current is used:
A. <p class="MsoNormal" style="text-align:justify">
In electric motor<o:p></o:p></p>
B. <p class="MsoNormal" style="text-align:justify">
To detect current<o:p></o:p></p>
C. <p class="MsoNormal" style="text-align:justify">
To measure current<o:p></o:p></p>
D. <p class="MsoNormal" style="text-align:justify">
All of these<o:p></o:p></p>
E. <p class="MsoNormal" style="text-align:justify">
None of these<o:p></o:p></p>
-
- 88 The magnitude of chemical Effects depends upon:
A. <p class="MsoNormal" style="text-align:justify">
Nature of liquid<o:p></o:p></p>
B. <p class="MsoNormal" style="text-align:justify">
Quantity of Electricity passed through the liquid<o:p></o:p></p>
C. <p class="MsoNormal" style="text-align:justify">
Color of the liquid<o:p></o:p></p>
D. <p class="MsoNormal" style="text-align:justify">
Both (A) and (C)<o:p></o:p></p>
E. <p class="MsoNormal" style="text-align:justify">
Both (A) and (B)<o:p></o:p></p>
-
- 89 Two dissimilar metals joined at their ends kept at constant temperature constitute:
A. <p class="MsoNormal" style="text-align:justify">
Cell<o:p></o:p></p>
B. <p class="MsoNormal" style="text-align:justify">
Voltmeter<o:p></o:p></p>
C. <p class="MsoNormal" style="text-align:justify">
Thermocouple<o:p></o:p></p>

D. <p class="MsoNormal" style="text-align:justify">
Potentiometer<o:p></o:p></p>

E. None of these

-
- 90 Electrolysis is the study of conduction of electricity through:

- A. Solids
B. Liquids
C. Gases
D. Plasma
-