ECAT Pre General Science Online Test

Sr	Questions	Answers Choice
1	magnetic field is a:	A. Vector quantity<o:p></o:p> B. Scalar quantity<o:p></o:p> C. Scalar as well as scalar quantity<o:p></o:p> D. Any of (A) or (B) <o:p></o:p> E. Neither (A) nor (B)
2	The pointer of a magnetic compass:	A. Is affected only by permanent magnets<o:p></o:p> B. Align itself parallel to the applied magnetic field<o:p></o:p> C. Vibrates in the magnetic field of the current<o:p></o:p> D. Aligns itself perpendicular to the magnetic field<o:p></o:p> E. Both (C) and (D)
3	It is customary represent a current flowing towards the reader by a symbol	A. (x) B. (+) C. (.) D. (-) E. (÷) <o:p></o:p>
4	A current carrying conductor sets up its own:	A. Electric field<o:p></o:p> B. Nuclear field<o:p></o:p> C. Magnetic field<o:p></o:p> D. Both (A) and (C)<o:p></o:p> E. All of these

		E. All of these
5	In the region surrounding a current carrying wire:	A. A magnetic field is setup <o:p></o:p> B. The lines of force are elliptical<o:p></o:p> C. Direction of lines of forces depends upon direction of current<o:p></o:p> D. Both (A) and (C)<o:p></o:p> E. All of these
6	When some compass needles are placed on a card board along a circle with the center at the wire, they will	A. Point the direction of N-S<o:p></o:p> B. Set themselves tangential to the circle<o:p></o:p> C. Point in the direction of E-W<o:p></o:p> D. None of these<o:p></o:p> E. Point in direction of S-E
7	Electrolysis is the study of conduction of electricity through:	A. Solids B. Liquids C. Gases D. Plasma
8	Two dissimilar metals joined at their ends kept at constant temperature constitute:	A. Cell<o:p></o:p> B. Voltmeter<o:p></o:p> C. Thermocouple<o:p></o:p> D. Potentiometer<o:p></o:p> E. None of these
9	The magnitude of chemical Effects depends upon:	A. Nature of liquid<o:p></o:p> B. Quantity of Electricity passed through the liquid<o:p></o:p> C. Color of the

		liquid<o:p></o:p> D. Both (A) and (C) <o:p></o:p> E. Both (A) and (B)<o:p></o:p>
10	Magnetic effect of current is used:	A. In electric motor<o:p></o:p> B. To detect current<o:p></o:p> C. To measure current<o:p></o:p> D. All of these<o:p></o:p> E. None of these<o:p></o:p>
11	The strength of magnetic field at certain points around a wire depends upon:	A. Value of current passing<o:p></o:p> B. Distance from the current element<o:p></o:p> C. Color of the material<o:p></o:p> D. Both (A) and (B)<o:p></o:p> E. Both (B) and (C) <o:p></o:p>
12	The passage of current is accompanied by a magnetic field in the surrounding space:	A. Always accompanied<o:p></o:p> B. Sometimes accompanied<o:p></o:p> C. Never accompanied<o:p></o:p> D. Any of above <o:p></o:p> E. None of these<o:p> </o:p>
		A.

13	The passage of current is accompanied by a magnetic field in the surrounding space:	A. Always accompanied<o:p></o:p> B. Sometimes accompanied<o:p></o:p> C. Never accompanied<o:p></o:p> D. Any of above <o:p></o:p> E. None of these<o:p></o:p>
14	Heating effect of current utilized in:	A. Electric motor<o:p></o:p> B. Electric toaster<o:p></o:p> C. Electroplating<o:p></o:p> D. Electric kettle<o:p></o:p> E. Both (B) and (D)<o:p></o:p>
15	As the current flow through the wire:	A. It generates heat in the wire<o:p></o:p> B. It produces sound in the wire<o:p></o:p> C. Resistance of the wire decreases<o:p></o:p> D. Voltage across the ends is increased<o:p></o:p> E. None of these
16	The obvious effect/s of current is/are:	A. Heating effect<o:p></o:p> B. Magnetic effect<o:p></o:p> C. Chemical effect<o:p></o:p> D.

		D. Both (C) and (B)<o:p></o:p> E. All of these
17	When two spherical conducting balls at different potentials are joined by metallic wire, the current starts:	A. Decreasing from zero to maximum<o:p></o:p> B. Increasing from zero to maximum<o:p></o:p> C. Decreasing from maximum to zero<o:p></o:p> D. Increasing from maximum to zero<o:p></o:p> E. Both (A) and (D) <o:p></o:p>
18	The device which can convert heat energy into electrical energy is called:	A. Thermistor<o:p></o:p> B. Thermometer<o:p></o:p> C. Thermostat<o:p></o:p> D. Thermocouple<o:p></o:p> E. Both (C) and (D)<o:p></o:p>
19	Conversion of chemical energy to electrical energy can be achieved by:	A. Primary cell<o:p></o:p> B. Secondary cell<o:p></o:p> C. Both (A) and (B)<o:p></o:p> D. Photovoltaic cell<o:p></o:p> E. Solar cell<o:p></o:p>

20	The example/s of non-electrical energy to electrical is/are:	A. Chemical energy<o:p></o:p> B. Mechanical energy<o:p></o:p> C. Heat energy<o:p></o:p> D. Both (A) and (B)<o:p></o:p> E. All of these<o:p></o:p>
21	When two spherical conducting balls at different potentials are joined by a metallic wire, after some time:	A. Both the conductors are at the same potential<o:p></o:p> B. Potential difference across the conductors remain constant<o:p></o:p> C. Potential difference across the conductors becomes zero<o:p></o:p> D. Both (A) and (B)<o:p></o:p> E. Both (A) and (C)<o:p></o:p>
22	When two spherical conducting balls at different potentials are joined by a metallic wire, after some time:	A. Both the conductors are at the same potential<o:p></o:p> B. Potential difference across the conductors remain constant<o:p></o:p> C. Potential difference across the conductors becomes zero<o:p></o:p> D. Both (A) and (B)<o:p></o:p> E. Both (A) and (C)<o:p></o:p>
		A. Be zero<o:p></o:p> B. Be

23	In order to have a constant current through wire, the potential difference across its end should:	family: "Times New Roman", serif; ">Be maintained constant<o:p></o:p> C. Goes on increasing<o:p></o:p> D. Go on decreasing<o:p></o:p> E. Both (A) and (B) <o:p></o:p>
24	An electric field is generated along the wire when:	A. Its resistance is very high<o:p></o:p> B. A constant potential is maintained across the wire<o:p></o:p> C. <span style="font-size:12.0pt; line-height:107%;font- family:"Times New Roman","serif"">Net current through the wire is zero<o:p></o:p> D. A constant potential difference is maintained across the wire<o:p></o:p> E. Either (A) or (D) <o:p></o:p>
25	The effects of bends in a wire on its electrical resistance are:	A. Zero<o:p></o:p> B. Much larger<o:p> </o:p> C. Larger<o:p></o:p> D. Smaller<o:p></o:p> E. None of these<o:p> </o:p>
26	When resistance of a current carrying wire increases due to rise in temperature, the drift velocity of electrons:	A. Decreases<o:p></o:p> B. Increases<o:p> </o:p> C. Remains the constant<o:p></o:p> D. Either of these<o:p></o:p> E.

		E. None of these<o:p></o:p>
27	When a constant potential difference is applied across the conductor, the drift velocity of electrons:	A. Increases<o:p></o:p> B. Decreases<o:p></o:p> C. Remains the constant<o:p></o:p> D. Either of these<o:p></o:p> E. None of these<o:p></o:p>
28	When a constant potential difference is applied across the conductor, the drift velocity of electrons:	A. Increases<o:p></o:p> B. Decreases<o:p></o:p> C. Remains the constant<o:p></o:p> D. Either of these<o:p></o:p> E. None of these<o:p></o:p>
29	The term drift velocity is used when the ends of a wire are:	A. Connected to a laser source<o:p></o:p> B. Connected to a voltage source<o:p></o:p> C. Not connected to a voltage source<o:p></o:p> D. At different values of potential<o:p></o:p> E. Both (B) and (D)<o:p></o:p>
		A. The ends of the wire only<o:p></o:p> B. <span style="font-size:12.0pt; line-height:107%;font-

30	If the ends of a wire are connected to a battery an electric field E will be set up at:	family:"Times New Roman","serif"">Mid points of the wire only<o:p></o:p> C. <span style="font-size:12.0pt; line-height:107%;font-family:"Times New Roman","serif"">Every point within the wire<o:p></o:p> D. <span style="font-size: 12pt; line-height: 107%; font-family: "Times New Roman", serif;">At nodes only<o:p></o:p> E. <span style="font-size:12.0pt; line-height:107%;font- family:"Times New Roman","serif"">Both (B) and (D) <o:p></o:p>