

## ECAT Physics Chapter 13 Current Electricity

Sr	Questions	Answers Choice
1	The device which can convert heat energy into electrical energy is called:	<p>A. <span style='font-size: 12pt; line-height: 107%; font-family: "Times New Roman", "serif";'>Thermistor</span></p> <p>B. <span style='font-size: 12pt; line-height: 107%; font-family: "Times New Roman", "serif";'>Thermometer</span></p> <p>C. <span style='font-size: 12pt; line-height: 107%; font-family: "Times New Roman", "serif";'>Thermostat</span></p> <p>D. <span style='font-size: 12pt; line-height: 107%; font-family: "Times New Roman", "serif";'>Thermocouple</span></p> <p>E. Both (C) and (D)</p>
2	Most practical application of electricity involve	<p>A. <span style='font-size: 12pt; line-height: 107%; font-family: "Times New Roman", "serif";'>Charges at the rest</span></p> <p>B. <span style='font-size: 12pt; line-height: 107%; font-family: "Times New Roman", "serif";'>Charges in the motion</span></p> <p>C. <span style='font-size: 12pt; line-height: 107%; font-family: "Times New Roman", "serif";'>Electrons at rest</span></p> <p>D. <span style='font-size: 12pt; line-height: 107%; font-family: "Times New Roman", "serif";'>Atoms in motion</span></p> <p>E. <span style='font-size: 12pt; line-height: 107%; font-family: "Times New Roman", "serif";'>Molecules in motion</span></p>
3	Electric field lines emerge from the charge in:	<p>A. <span style='font-size: 12pt; line-height: 107%; font-family: "Times New Roman", "serif";'>One dimension</span></p> <p>B. <span style='font-size: 12pt; line-height: 107%; font-family: "Times New Roman", "serif";'>Two dimensions</span></p> <p>C. <span style='font-size: 12pt; line-height: 107%; font-family: "Times New Roman", "serif";'>Three dimensions</span></p> <p>D. <span style='font-size: 12pt; line-height: 107%; font-family: "Times New Roman", "serif";'>Four dimensions</span></p> <p>E. <span style='font-size: 12pt; line-height: 107%; font-family: "Times New Roman", "serif";'>None of them</span></p>

		</o:p></span></p>
4	Which of the following substances has got positive temperature coefficient of resistance?	A. Carbon B. Germanium C. Silicon D. Aluminium E. None of these
5	Electrolysis is the study of conduction of electricity through:	A. Solids B. Liquids C. Gases D. Plasma
6	In case of two identical charges placed certain distance apart, the electric field lines are:	A. <p class="MsoNormal"><span style="font-size:12.0pt;line-height:107%;font-family:&quot;Times New Roman&quot;, &quot;serif&quot;">Straight lines</o:p></span></p> B. <p class="MsoNormal"><span style="font-size:12.0pt;line-height:107%;font-family:&quot;Times New Roman&quot;, &quot;serif&quot;">Sine curves</o:p></span></p> C. <p class="MsoNormal"><span style="font-size:12.0pt;line-height:107%;font-family:&quot;Times New Roman&quot;, &quot;serif&quot;">Curved</o:p></span></p> D. <p class="MsoNormal"><span style="font-size:12.0pt;line-height:107%;font-family:&quot;Times New Roman&quot;, &quot;serif&quot;">Both (A) and (B)</o:p></span></p> E. <p class="MsoNormal"><span style="font-size:12.0pt;line-height:107%;font-family:&quot;Times New Roman&quot;, &quot;serif&quot;">None of these</o:p></span></p>
7	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. $6.25 \times 10^{18}$ electrons per second E. Both B and D
8	The emf is measured in:	A. Newton B. Volt C. J/C D. Both A and B E. Both B and C
9	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
10	The example/s of non-electrical energy to electrical is/are:	A. <p class="MsoNormal" style="text-align:justify"><span style="font-size:12.0pt; line-height:107%;font-family:&quot;Times New Roman&quot;, &quot;serif&quot;">Chemical energy</o:p></span></p> B. <p class="MsoNormal" style="text-align:justify"><span style="font-size:12.0pt; line-height:107%;font-family:&quot;Times New Roman&quot;, &quot;serif&quot;">Mechanical energy</o:p></span></p> C. <p class="MsoNormal" style="text-align:justify"><span style="font-size:12.0pt; line-height:107%;font-family:&quot;Times New Roman&quot;, &quot;serif&quot;">Heat energy</o:p></span></p> D. <p class="MsoNormal" style="text-align:justify"><span style="font-size:12.0pt; line-height:107%;font-family:&quot;Times New Roman&quot;, &quot;serif&quot;">Both (A) and (B)</o:p></span></p> E. <p class="MsoNormal" style="text-align:justify"><span style="font-size: 12pt; line-height: 107%; font-family: &quot;Times New Roman&quot;, serif;">All of these<b></o:p></b></span></p>
		A. <p class="MsoNormal" style="text-align:justify"><span style="font-size:12.0pt; line-height:107%;font-family:&quot;Times New Roman&quot;, &quot;serif&quot;">Decreasing from zero to maximum</o:p></span></p> B. <p class="MsoNormal" style="text-align:justify"><span style="font-size:12.0pt; line-height:107%;font-

11	When two spherical conducting balls at different potentials are joined by metallic wire, the current starts:	<p>family:&amp;quot;Times New Roman&amp;quot;, &amp;quot;serif&amp;quot;,"&gt;Increasing from zero to maximum&lt;o:p&gt;&lt;/o:p&gt;&lt;/span&gt;&lt;/p&gt; C. &lt;p class="MsoNormal" style="text-align:justify"&gt;&lt;span style="font-size: 12pt; line-height: 107%; font-family: &amp;quot;Times New Roman&amp;quot;, serif;"&gt;Decreasing from maximum to zero&lt;b&gt;&lt;o:p&gt;&lt;/o:p&gt;&lt;/b&gt;&lt;/span&gt;&lt;/p&gt; D. &lt;p class="MsoNormal" style="text-align:justify"&gt;&lt;span style="font-size: 12.0pt; line-height:107%;font-family:&amp;quot;Times New Roman&amp;quot;, &amp;quot;serif&amp;quot;"&gt;Increasing from maximum to zero&lt;o:p&gt;&lt;/o:p&gt;&lt;/span&gt;&lt;/p&gt; E. &lt;span style="font-family: &amp;quot;Times New Roman&amp;quot;, serif; font-size: 12pt; text-align: justify;"&gt;Both (A) and (D)&lt;/span&gt;&lt;p class="MsoNormal" style="text-align:justify"&gt;&lt;span style="font-size:12.0pt; line-height:107%;font-family:&amp;quot;Times New Roman&amp;quot;, &amp;quot;serif&amp;quot;"&gt;&lt;o:p&gt;&lt;/o:p&gt;&lt;/span&gt;&lt;/p&gt;</p>
12	The current of 1 ampere is passing through a conductor. The charge passing through it in half a minute is:	<p>A. &lt;p class="MsoNormal" style="text-align:justify"&gt;&lt;span style="font-size: 12.0pt; line-height:107%;font-family:&amp;quot;Times New Roman&amp;quot;, &amp;quot;serif&amp;quot;"&gt;One coulomb&lt;o:p&gt;&lt;/o:p&gt;&lt;/span&gt;&lt;/p&gt; B. &lt;p class="MsoNormal" style="text-align:justify"&gt;&lt;span style="font-size: 12.0pt; line-height: 107%;font-family:&amp;quot;Times New Roman&amp;quot;, &amp;quot;serif&amp;quot;"&gt;0.5 coulomb&lt;o:p&gt;&lt;/o:p&gt;&lt;/span&gt;&lt;/p&gt; C. &lt;p class="MsoNormal" style="text-align:justify"&gt;&lt;span style="font-size: 12.0pt; line-height: 107%;font-family:&amp;quot;Times New Roman&amp;quot;, &amp;quot;serif&amp;quot;"&gt;30 coulomb&lt;o:p&gt;&lt;/o:p&gt;&lt;/span&gt;&lt;/p&gt; D. &lt;p class="MsoNormal" style="text-align:justify"&gt;&lt;span style="font-size: 12.0pt; line-height: 107%;font-family:&amp;quot;Times New Roman&amp;quot;, &amp;quot;serif&amp;quot;"&gt;2 coulombs&lt;o:p&gt;&lt;/o:p&gt;&lt;/span&gt;&lt;/p&gt; E. &lt;p class="MsoNormal" style="text-align:justify"&gt;&lt;span style="font-size: 12.0pt; line-height: 107%;font-family:&amp;quot;Times New Roman&amp;quot;, &amp;quot;serif&amp;quot;"&gt;None of these&lt;o:p&gt;&lt;/o:p&gt;&lt;/span&gt;&lt;/p&gt;</p>
13	A thermistor is a resistor which is:	<p>A. Light Sensitive  B. Heat Sensitive  C. Sound Sensitive  D. All of these  E. None of these</p>
14	The value of resistivity is the least for:	<p>A. Copper  B. Aluminium  C. Silver  D. Tungsten  E. Iron</p>
15	The passage of current is accompanied by a magnetic field in the surrounding space:	<p>A. &lt;p class="MsoNormal" style="text-align:justify"&gt;&lt;span style="font-size: 12pt; line-height: 107%; font-family: &amp;quot;Times New Roman&amp;quot;, serif;"&gt;Always accompanied&lt;b&gt;&lt;o:p&gt;&lt;/o:p&gt;&lt;/b&gt;&lt;/span&gt;&lt;/p&gt; B. &lt;p class="MsoNormal" style="text-align:justify"&gt;&lt;span style="font-size: 12.0pt; line-height: 107%;font-family:&amp;quot;Times New Roman&amp;quot;, &amp;quot;serif&amp;quot;"&gt;Sometimes accompanied&lt;o:p&gt;&lt;/o:p&gt;&lt;/span&gt;&lt;/p&gt; C. &lt;p class="MsoNormal" style="text-align:justify"&gt;&lt;span style="font-size: 12.0pt; line-height: 107%;font-family:&amp;quot;Times New Roman&amp;quot;, &amp;quot;serif&amp;quot;"&gt;Never accompanied&lt;o:p&gt;&lt;/o:p&gt;&lt;/span&gt;&lt;/p&gt; D. &lt;span style="font-family: &amp;quot;Times New Roman&amp;quot;, serif; font-size: 12pt; text-align: justify;"&gt;Any of above&lt;/span&gt;&lt;p class="MsoNormal" style="text-align:justify"&gt;&lt;span style="font-size: 12.0pt; line-height: 107%;font-family:&amp;quot;Times New Roman&amp;quot;, &amp;quot;serif&amp;quot;"&gt;&lt;o:p&gt;&lt;/o:p&gt;&lt;/span&gt;&lt;/p&gt; E. &lt;p class="MsoNormal" style="text-align:justify"&gt;&lt;span style="font-size: 12.0pt; line-height: 107%;font-family:&amp;quot;Times New Roman&amp;quot;, &amp;quot;serif&amp;quot;"&gt;None of these&lt;o:p&gt;&lt;/o:p&gt;&lt;/span&gt;&lt;/p&gt; A. &lt;p class="MsoNormal" style="text-align:justify"&gt;</p>

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

- A. **Connected to a laser source**
- B. **Connected to a voltage source**
- C. **Not connected to a voltage source**
- D. **At different values of potential**
- E. **Both (B) and (D)**

17 The best conductor is:

- A. Silver
- B. Copper
- C. Aluminium
- D. Both B and C
- E. None of them

18 In case of metallic conductors, the charge carriers are:

- A. **Protons**
- B. **Electrons**
- C. **Antiprotons**
- D. **Positrons**
- E. **Both (A) and (B)**

19 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

20 The fourth band is a:

- A. Silver band
- B. Red band
- C. Gold band
- D. **Either A or C**
- E. Either A or B