

## Physics ECAT Pre Engineering Chapter 14 Electromagnetism

Sr	Questions	Answers Choice
1	The pointer of a magnetic compass:	<p>A. <span style="font-size: 12pt; line-height: 107%; font-family: 'Times New Roman', serif;">Is affected only by permanent magnets</span></p> <p>B. <span style="font-size: 12pt; line-height: 107%; font-family: 'Times New Roman', serif;">Align itself parallel to the applied magnetic field</span></p> <p>C. <span style="font-size: 12pt; line-height: 107%; font-family: 'Times New Roman', serif;">Vibrates in the magnetic field of the current</span></p> <p>D. <span style="font-size: 12pt; line-height: 107%; font-family: 'Times New Roman', serif;">Aligns itself perpendicular to the magnetic field</span></p> <p>E. Both (C) and (D)</p>
2	If the value of galvanometer constant $k = C/BA$ is made small, the galvanometer can be made	<p>A. Sensitive</p> <p>B. Accurate</p> <p>C. Stable</p> <p>D. None of these</p>
3	Lorentz force is defined as	<p>A. <math>q(E + V \times B)</math></p> <p>B. <math>q(E \times B + V)</math></p> <p>C. <math>q(E \times V + B)</math></p> <p>D. <math>q(E \times B)</math></p>
4	Which is modified form of galvanometer	<p>A. potentiometer</p> <p>B. battery</p> <p>C. voltmeter</p> <p>D. slide wire bridge</p>
5	Charge to mass ratio ( $e/m$ ) of an electron is given by the relation	<p>A. <math>e/m = 2V/Br^2</math></p> <p>B. <math>e/m = 2V/B^2r</math></p> <p>C. <math>e/m = 2V/B^2r^2</math></p> <p>D. <math>e/m = V/2B^2r^2</math></p>
6	Which one of the following relations is correct?	<p>A. <math>1 \text{ Wb-m}^2 = \text{Nm}</math></p> <p>B. <math>1 \text{ tesla} = 104 \text{ gauss}</math></p> <p>C. <math>1 \text{ Wb-m}^2 = 1 \text{ tesla}</math></p> <p>D. All of the above</p>
7	The torque per unit twist of coil is called	<p>A. proportionality constant</p> <p>B. gravitational constant</p> <p>C. boltzman constant</p> <p>D. coupling constant</p>
8	Amperean path is a:	<p>A. <span style="font-size: 12pt; line-height: 107%; font-family: 'Times New Roman', serif;">Closed path</span></p> <p>B. <span style="font-size: 12pt; line-height: 107%; font-family: 'Times New Roman', serif;">Rectangular path</span></p> <p>C. <span style="font-size: 12pt; line-height: 107%; font-family: 'Times New Roman', serif;">Circular path</span></p> <p>D. <span style="font-size: 12pt; line-height: 107%; font-family: 'Times New Roman', serif;">None of these</span></p>



A current carrying conductor sets up its own:

- Roman&quot;, &quot; serif&quot;";>Electric field<o:p></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;">Nuclear field<o:p></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;">Magnetic field<o:p></o:p></span></p>  
D. <p class="MsoNormal" style="text-align:justify"><span style="font-size: 12pt; line-height: 107%; font-family: &quot;Times New Roman&quot;, serif;">Both (A) and (C)<b><o:p></o:p></b></span></p>  
E. All of these