

## ECAT Pre General Science Physics Chapter 15 Electromagnetic Induction

Sr	Questions	Answers Choice
1	Back emf is produced due to	A. Self induction B. Mutual induction C. A.C D. Lenz's law
2	The motional e.m.f depends upon the	A. Length of a conductor B. Strength of a magnet C. Speed of the conductor D. All of the above
3	Split rings act as	A. Vibrator B. Resistor C. Motor D. Commutator
4	Faraday's law of electromagnetic induction has been used in the construction of:	A. Galvanometer B. Voltmeter C. Electric motor D. Electric generator E. Commutator
5	The work is stored in the inductor as	A. Electric potential energy B. Elastic potential energy C. Magnetic energy D. Absolute potential energy
6	A.C. can be measure with the help of	A. Nuclear effect B. Magnetic effect C. Chemical effect D. Heating effect
7	Micheal Faraday and joseph Henry belong respectively to:	A. USA and England B. England and France C. England and USA D. USA and France E. None of these
8	What is the coefficient of mutual inductance, when the magnetic flux changes by $2 \times 10^{-2}$ Wb, and change in current is 0.01 A?	A. 2 H B. 3 H C. 1/2 H D. Zero
9	When the conductor moved across a magnetic field:	A. Emf induced is similar to that of a battery <p style="margin-left: 20px;">style="text-align:justify"&gt;&lt;span style="font-size:12.0pt; line-height:107%;font-family:"Times New Roman","serif";"&gt;&lt;o:p&gt;&lt;/o:p&gt;&lt;/span&gt;&lt;/p&gt;</p> B. Emf induced gives rise to induced current <p style="margin-left: 20px;">style="text-align:justify"&gt;&lt;span style="font-size:12.0pt; line-height:107%;font-family:"Times New Roman","serif";"&gt;&lt;o:p&gt;&lt;/o:p&gt;&lt;/span&gt;&lt;/p&gt;</p> C. An emf induced across its ends <p style="margin-left: 20px;">style="text-align:justify"&gt;&lt;span style="font-size:12.0pt; line-height:107%;font-family:"Times New Roman","serif";"&gt;&lt;o:p&gt;&lt;/o:p&gt;&lt;/span&gt;&lt;/p&gt;</p> D. All are correct <p style="margin-left: 20px;">style="text-align:justify"&gt;&lt;span style="font-size:12.0pt; line-height:107%;font-family:"Times New Roman","serif";"&gt;&lt;o:p&gt;&lt;/o:p&gt;&lt;/span&gt;&lt;/p&gt;</p> E. None of these <p style="margin-left: 20px;">style="text-align:justify"&gt;&lt;span style="font-size:12.0pt; line-height:107%;font-family:"Times New Roman","serif";"&gt;&lt;o:p&gt;&lt;/o:p&gt;&lt;/span&gt;&lt;/p&gt;</p>

		roman&quot;,&quot;serif&quot; > <o:p></o:p></span></p>
10	An induced current can be produced by:	<p>A. Constant magnetic field  <b>B. Changing magnetic field</b>  C. Varying magnetic field  D. Constant electric field  E. None of these</p>
11	An induced current can be produced by:	<p>A. &lt;span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-clip: initial;"&gt;Constant magnetic field&lt;/span&gt;  <b>B. &lt;span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-clip: initial;"&gt;Changing magnetic field&lt;/span&gt;</b>  C. &lt;span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-clip: initial;"&gt;Varying magnetic field&lt;/span&gt;  D. &lt;span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-clip: initial;"&gt;Constant electric field&lt;/span&gt;  E. &lt;span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-clip: initial;"&gt;None of these&lt;/span&gt;</p>
12	The magnitude of induced emf depends upon the	<p>A. Rate of decrease of magnetic field  <b>B. Rate of change of magnetic field</b>  C. Rate of increase of magnetic flux  D. Constancy of magnetic field  E. None of these</p>
13	In the equilibrium state, the potential difference between two ends of the conductor moving across a magnetic field is called:	<p><b>A. Both A and C</b>  B. Induced emf  C. Both A and B  D. Motion emf  E. Electrostatic emf</p>
14	In magnet-coil experiment, emf can be produced by:	<p>A. Keeping the coil stationary and moving the magnet  B. Keeping the magnet stationary and moving the coil  C. Relative motion of the loop and magnet  D. Any one of above  <b>E. All above</b></p>
15	Referring to above figure, current in coil P falls from its maximum value to zero:	<p>A. At the instant the switch is closed  <b>B. At the instant the switch is opened</b>  C. When switch is kept open  D. When switch is kept closed  E. None of these</p>
16	In a coil current change from 2 to 4 A in .05 s. If the average induced emf is 8V then coefficient of self-inductance is:	<p><b>A. 0.2 henry</b>  B. 0.1 henry  C. 0.8 henry  D. 0.04 henry</p>
17	All the above	<p>A. Constant magnetic field  <b>B. Changing magnetic field</b>  C. Motion of magnet</p>

An induced current can be produced by

- C. varying electric field
- D. Constant electric field
- E. None of these

When there is no relative motion between the magnet and coil, the galvanometer indicated

- A. No current in the circuit
- B. An increasing current
- C. A decreasing current
- D. A constant current
- E. Either B or C

In the equilibrium state, the potential difference between two ends of the conductor moving across a magnetic field is called:

- A. Motion emf
- B. Electrostatic emf
- C. Induced emf
- D. Both A and B
- E. Both A and C

Eddy current is produced when:

- A. A metal is kept in varying magnetic field
- B. A metal is kept in steady magnetic field
- C. A circular coil is placed in a steady magnetic field
- D. A current is passed through a circular coil