

## ECAT Physics Chapter 15 Electromagnetic Induction

Sr	Questions	Answers Choice
1	When there is no relative motion between the magnet and coil, the galvanometer indicates:	A. No current in circuit B. An increasing current C. A decreasing current D. Either B or C
2	The current produced by moving a loop of a wire across a magnetic field is called:	A. Direct current B. Magnetic current C. Alternating current D. Induced current E. None of these
3	A device which converts Electrical energy into mechanical energy is called as	A. Transformer B. Generator C. Motor D. All of these
4	The induced emf in a coil is proportional to:	A. Magnetic flux through a coil B. Rate of change of magnetic flux through the coil C. Area of the coil D. Product of magnetic flux and area of the coil
5	The magnitude of induced emf depends upon the:	A. Rate of decrease of magnetic field B. Rate of change of magnetic field C. Rate of increase of magnetic flux D. Constancy of magnetic field E. None of these
6	The SI unit of magnetic induction is	A. Weber B. Weber/meter C. Henry D. Tesla
7	The current produced by moving a loop of wire across a magnetic field is called:	A. Direct current B. Magnetic current C. Alternating current D. Induced current E. None of these
8	An emf is set up in a conductor when it	A. Is kept in a magnetic field B. Is kept in an electric field C. Moves across a magnetic field D. Both A and B E. None of these
9	An induced current can be produced by:	A. <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-origin: initial; background-clip: initial;">Constant magnetic field</span> B. <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-origin: initial; background-clip: initial;">Changing magnetic field</span> C. <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-origin: initial; background-clip: initial;">Varying magnetic field</span> D. <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-origin: initial; background-clip: initial;">Constant magnetic field</span>

		serif; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;">Constant electric field</span> E. <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-origin: initial; background-clip: initial;">None of these</span>
10	A coil of constant area is placed in a constant magnetic field. An include current is produced in the coil when:	A. The coil is destroyed B. The coil is Rotated C. The coil is neither destroyed nor rotated <b>D. Both (A) and (B)</b> E. None of these
11	The induced current in the loop can be Increased by	A. Using a stronger magnetic field B. Moving the loop faster C. Replacing the loop by a coil of many turns <b>D. All above</b> E. Both A and B
12	The ratio of average e.m.f in the coil tot he time rate of change of current in the same coil is called	A. Mutual induction B. Mutual inductance C. Capacitance <b>D. Self inductance</b>
13	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:	<b>A. 0.2 henry</b> B. 0.1 henry C. 0.8 henry D. 0.04 henry
14	In magnet-coil experiment, emf can be produced by:	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>
15	Referring to above figure, a changing current in coil P can be produced:	A. At the instant the switch is closed B. At the instant the switch is opened C. With the help of rheostat <b>D. All of these</b> E. None of these
16	In magnet-coil experiment, emf can be produced by	A. Keeping the coil stationary and moving the magnet B. Keeping the magnet stationary and moving C. Relative motion of the loop and magnet D. Any one of above <b>E. All above</b>
17	When the conductor moved across a magnetic field:	A. Emf induced is similar to that of a battery<p class="MsoNormal" style="text-align:justify"><span style="font-size:12.0pt; line-height:107%;font-family:"Times New Roman", "serif""><o:p></o:p></span></p> B. Emf induced gives rise to induced current<p class="MsoNormal" style="text-align:justify"><span style="font-size:12.0pt; line-height:107%;font-family:"Times New Roman", "serif""><o:p></o:p></span></p> <b>C. An emf induced across its ends&lt;p class="MsoNormal" 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;</b> D. All are correct<p class="MsoNormal" style="text-align:justify"><span style="font-size:12.0pt; line-height:107%;font-

family:"Times New  
Roman","serif",>  
<o:p></o:p></span></p>  
E. None of these<p  
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Roman","serif",>  
<o:p></o:p></span></p>

18 An induced current can be produced by

- A. Constant magnetic field
- B. Changing magnetic field
- C. Varying electric field
- D. Constant electric field
- E. None of these

19 When a conductor is moved across a magnetic field:

- A. Emf induced is similar to that of a battery
- B. Emf induced gives rise to induced current
- C. An emf is induced across its ends
- D. All are correct
- E. None of these

20 The magnitude of induced emf depends upon the:

- A. Rate of decrease of magnetic field
- B. Rate of change of magnetic field
- C. Rate of increase of magnetic flux
- D. Constancy of magnetic field
- E. None of these