

## ECAT Physics Chapter 15 Electromagnetic Induction

Sr	Questions	Answers Choice
1	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
2	The induced current in the loop can be increased by:	A. Using a strong magnetic field B. Moving the loop faster C. Replacing the loop by a coil of many turns D. All of above E. None of these
3	The work is stored in the inductor as	A. Electric potential energy B. Elastic potential energy C. Magnetic energy D. Absolute potential energy
4	The device in which induced emf is statically induced emf is:	A. Transformer B. AC generator C. Alternator D. Dynamo
5	An induced current can be produced by:	A. Constant magnetic field B. Changing magnetic field C. Varying magnetic feild D. Constant electric field E. None of these
6	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 D. All above E. Both (A) and (B)
7	The phenomenon of generation of induced emf is called:	A. Electrostatic induced B. Magnetic induced C. Electromagnetic induced D. Electric induced E. Both A and C
8	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
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 electric field</span>

		<p>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 electric field</span></p> <p>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></p>
10	In magnet-coil experiment, emf can be produced by	<p>A. Keeping the coil stationary and moving the magnet</p> <p>B. Keeping the magnet stationary and moving</p> <p>C. Relative motion of the loop and magnet</p> <p>D. Any one of above</p> <p>E. All above</p>
11	In the equilibrium state, the potential difference between two ends of the conductor moving across a magnetic field is called:	<p>A. Both A and C</p> <p>B. Induced emf</p> <p>C. Both A and B</p> <p>D. Motion emf</p> <p>E. Electrostatic emf</p>
12	Plan of a coil makes an angle of $20^\circ$ with the lines of magnetic field. The angle between B and vector area of plane of coil is:	<p>A. Also <span style='font-family: "Times New Roman", serif; font-size: 12pt; text-align: justify;'>°</span></p> <p>B. <span style='font-family: "Times New Roman", serif; font-size: 12pt; text-align: justify;'>70</span></p> <p>C. <span style='font-family: "Times New Roman", serif; font-size: 12pt; text-align: justify;'>90</span></p> <p>D. <span style='font-family: "Times New Roman", serif; font-size: 12pt; text-align: justify;'>180</span></p> <p>E. None of these</p>
13	The direction of induced current is always so as to oppose the cause which produces it. This is	<p>A. Lenz's law</p> <p>B. Ampere's law</p> <p>C. Faraday's law</p> <p>D. Coulomb's law</p> <p>E. None of these</p>
14	The Phenomenon of generation of induced emf is called	<p>A. Electrostatic induction</p> <p>B. Magnetic induction</p> <p>C. Electromagnetic induction</p> <p>D. Electric induction</p> <p>E. Both A and B</p>
		<p>A. Is associated with coil P</p> <p>B. Is associated with coil C</p>

15	Referring to above figure, due to change in current in the coil P, the change in magnetic flux:	<ul style="list-style-type: none"> <li>B. is associated with coil S</li> <li>C. Causes an induced current in coil S</li> <li>D. All of these</li> <li>E. None of these</li> </ul>
16	Instead of moving the coil towards a magnet, the magnet is moved towards the coil with the same speed. The galvanometer shows current	<ul style="list-style-type: none"> <li>A. Of same magnitude in the same direction</li> <li>B. Of different magnitude in the same direction</li> <li>C. Of same magnitude but in opposite direction</li> <li>D. Of different magnitude in the opposite direction</li> <li>E. None of these</li> </ul>
17	Lenz's law is the consequence of	<ul style="list-style-type: none"> <li>A. Mass</li> <li>B. Energy conservation</li> <li>C. Momentum conservation</li> <li>D. Charge</li> </ul>
18	Referring to above figure, current in the coil P grows from zero to its maximum value	<ul style="list-style-type: none"> <li>A. At the instant the switch is closed</li> <li>B. At the instant the switch is opened</li> <li>C. When switch is kept open</li> <li>D. All of above</li> <li>E. Neither of above</li> </ul>
19	The ratio of average e.m.f in the coil to the time rate of change of current in the same coil is called	<ul style="list-style-type: none"> <li>A. Mutual induction</li> <li>B. Mutual inductance</li> <li>C. Capacitance</li> <li>D. Self inductance</li> </ul>
20	Transformer is used to	<ul style="list-style-type: none"> <li>A. Increase alternating current</li> <li>B. Increase d.c voltage</li> <li>C. Increase &amp; Decrease emf</li> <li>D. All answers are right</li> </ul>