

## ECAT Physics Chapter 15 Electromagnetic Induction Online Test

Sr	Questions	Answers Choice
1	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>
2	Faraday's law of electromagnetic induction has been used in the construction of:	<p>A. Galvanometer</p> <p>B. Voltmeter</p> <p>C. Electric motor</p> <p>D. Electric generator</p> <p>E. Commutator</p>
3	The law of electromagnetic induction is related to:	<p>A. Coulomb</p> <p>B. Ampere</p> <p>C. Faraday</p> <p>D. Lenz</p> <p>E. None of these</p>
4	The rate change of area expressed is expressed in:	<p>A. None of these</p> <p>B. <math>\text{ms}^{-1}</math></p> <p>C. <math>\text{m}^2/\text{s}^2</math></p> <p>D. <math>\text{ms}^{-2}</math></p> <p>E. <math>\text{m}^2/\text{s}</math></p>
5	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 <math>20^\circ</math></p> <p>B. <math>70^\circ</math></p> <p>C. <math>90^\circ</math></p> <p>D. <math>180^\circ</math></p> <p>E. None of these</p>
6	A square loop of wire is moving through a uniform magnetic field. The normal to the loop is oriented parallel to the magnetic field. The emf induced in the loop is:	<p>A. Zero</p> <p>B. Of smaller magnitude</p> <p>C. Of larger magnitude</p> <p>D. Sometimes B, sometimes C</p> <p>E. Neither of these</p>
7	A metal rod of length 1m is moving at a speed of $1 \text{ ms}^{-1}$ in a direction making angle of $30^\circ$ with 0.5 T magnetic field. The emf produced in the rod is:	<p>A. 0.25 V</p> <p>B. 0.25 V</p> <p>C. 2.5 V</p> <p>D. 2.5 V</p>

8	Motional emf is called motional:	<p>A. Electromagnetic force and is measured in newtons</p> <p>B. Electromotive force and is measured in volt</p> <p>C. Electromotive force and is measured in newtons</p> <p>D. Electromagnetic force and is measured in volts</p> <p>E. None of these</p>
9	When the conductor moved across a magnetic field:	<p>A. Emf induced is similar to that of a battery</p> <p>B. Emf induced gives rise to induced current</p> <p>C. An emf induced across its ends</p> <p>D. All are correct</p> <p>E. None of these</p>
10	A coil of constant area is placed in a constant magnetic field. An induced current is produced in the coil when:	<p>A. The coil is destroyed</p> <p>B. The coil is Rotated</p> <p>C. The coil is neither destroyed nor rotated</p> <p>D. Both (A) and (B)</p> <p>E. None of these</p>
11	The magnitude of induced emf depends upon the:	<p>A. Rate of decrease of magnetic field</p> <p>B. Rate of change of magnetic field</p> <p>C. Rate of increase of magnetic flux</p> <p>D. Constancy of magnetic field</p> <p>E. None of these</p>
12	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 the coil</p> <p>C. Relative motion of the loop and magnet</p> <p>D. Any one of above</p> <p>E. All above</p>
13	The induced current in the loop can be increased by:	<p>A. Using a stronger magnetic field</p> <p>B. Moving the loop faster</p> <p>C. Replacing the loop by a coil of many turns</p> <p>D. All above</p> <p>E. Both (A) and (B)</p>
14	The induced current in a conductor depends upon:	<p>A. Resistance of the loop</p> <p>B. Speed with which the conductor moves</p> <p>C. Any of these</p> <p>D. Both (A) and (B)</p> <p>E. None of these</p>
15	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>

