

Physics ECAT Pre Engineering Chapter 15 Electromagnetic Induction

Sr	Questions	Answers Choice
1	An induced current can be produced by:	A. Constant magnetic field B. Changing magnetic field C. Varying magnetic field D. Constant electric field E. None of these
2	In the equilibrium state, the potential difference between two ends of the conductor moving across a magnetic field is called:	A. Both A and C B. Induced emf C. Both A and B D. Motion emf E. Electrostatic emf
3	Step up transformer has a transformation ratio of 3:2. What is the voltage in secondary, if voltage in primary is 30V:	A. 45 V B. 15 V C. 90 V D. 300 V
4	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
5	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
6	Plan of a coil makes an angle of 20° with the lines of magnetic field. The angle between B and vector area of plane of coil is:	A. Also 20° B. 70° C. 90° D. 180° E. None of these
7	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

		<p>C. Relative motion of the loop and magnet</p> <p>D. Any one of above</p> <p>E. All above</p>
8	The induced emf in a coil is proportional to:	<p>A. Magnetic flux through a coil</p> <p>B. Rate of change of magnetic flux through the coil</p> <p>C. Area of the coil</p> <p>D. Product of magnetic flux and area of the coil</p>
9	Referring to above figure, current in coil P falls from its maximum value to zero:	<p>A. At the instant the switch is closed</p> <p>B. At the instant the switch is opened</p> <p>C. When switch is kept open</p> <p>D. When switch is kept closed</p> <p>E. None of these</p>
10	The current produced by moving a loop of a wire across a magnetic field is called:	<p>A. Direct current</p> <p>B. Magnetic current</p> <p>C. Alternating current</p> <p>D. Induced current</p> <p>E. None of these</p>
11	Transformer is used to	<p>A. Increase alternating current</p> <p>B. Increase d.c voltage</p> <p>C. Increase & Decrease emf</p> <p>D. All answers are right</p>
12	The motional e.m.f depends upon the	<p>A. Length of a conductor</p> <p>B. Strength of a magnet</p> <p>C. Speed of the conductor</p> <p>D. All of the above</p>
13	The product of induced current and the resistance of the wire through which the current is passing is called:	<p>A. Electromagnetic induction</p> <p>B. induced emf</p> <p>C. Induced current</p> <p>D. Self induced</p> <p>E. None of these</p>
14	A metal rod of length 1m is moving at a speed of 1 ms^{-1} in a direction making angle of 30° with 0.5 T magnetic field. The emf produced in the rod is:	<p>A. 0.25 N</p> <p>B. 0.25 V</p> <p>C. 2.5 V</p> <p>D. 2.5 N</p> <p>E. 25 V</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</p> <p>B. At the instant the switch is opened</p> <p>C. When switch is kept open</p> <p>D. When switch is kept closed</p> <p>E. None of these</p>
16	The change of magnetic flux through a circuit will produce	<p>A. Magnetic Field</p> <p>B. Electric Field</p> <p>C. emf</p> <p>D. a.c</p>
17	The SI unit of magnetic induction is	<p>A. Weber</p> <p>B. Weber/meter</p> <p>C. Henry</p> <p>D. Tesla</p>
18	Split rings act as	<p>A. Vibrator</p> <p>B. Resistor</p> <p>C. Motor</p> <p>D. Commutator</p>
19	The induced current in the loop can be increased by:	<p>A. Using a strong 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 of above</p> <p>E. None of these</p>
20	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>