

ECAT Physics Chapter 15 Electromagnetic Induction

Sr	Questions	Answers Choice
1	The Phenomenon of generation of induced emf is called	A. Electrostatic induction B. Magnetic induction C. Electromagnetic induction D. Electric induction E. Both A and B
2	When a conductor moved with its length parallel to the lines of magnetic field:	A. An emf is induced across its ends B. Emf induced is similar to that of a battery C. Emf passes through the conductor D. Both A and B E. None of these
3	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
4	Referring to above figure, due to change in current in the coil P, the change in magnetic flux:	A. Is associated with coil P B. Is associated with coil S C. Causes an induced current in coil S D. All of these E. None of these
5	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
6	A device which converts Electrical energy into mechanical energy is called as	A. Transformer B. Generator C. Motor D. All 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 C. Relative motion of the loop and magnet D. Any one of above E. All above
8	Referring to above figure, current in the coil P grows from zero to its maximum value	A. At the instant the switch is closed B. At the instant the switch is opened C. When switch is kept open D. All of above E. Neither of above
9	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:	A. 0.2 henry B. 0.1 henry C. 0.8 henry D. 0.04 henry
10	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
11	For inducing emf in a coil the basic requirement is that:	A. Flux should link the coil B. Change in flux should link the coil C. Coil should form a closed loop D. Both B and C are true
12	Self induced e.m.f. is also called	A. Motional e.m.f. B. Thermistor C. Electrostatic induction D. Back e.m.f

13	Instead of moving the coil towards a magnet, the magnet is moved towards the coil with the same speed. The galvanometer shows current	<p>B. Of different magnitude in the same direction</p> <p>C. Of same magnitude but in opposite direction</p> <p>D. Of different magnitude in the opposite direction</p> <p>E. None of these</p>
14	Which of the following quantities remain constant in step up transformer?	<p>A. Current</p> <p>B. Voltage</p> <p>C. Power</p> <p>D. Heat</p>
15	Step up transformer has a transformation ratio of 3:2. What is the voltage in secondary, if voltage in primary is 30V:	<p>A. 45 V</p> <p>B. 15 V</p> <p>C. 90 V</p> <p>D. 300 V</p>
16	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 (D)</p>
17	The unit of induced emf is:	<p>A. Volt</p> <p>B. Nm/As</p> <p>C. Joule coul⁻¹</p> <p>D. Both A and C</p> <p>E. All of these</p>
18	The current produced by moving a loop of 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>
19	When there is no relative motion between the magnet and coil, the galvanometer indicates:	<p>A. No current in circuit</p> <p>B. An increasing current</p> <p>C. A decreasing current</p> <p>D. Either B or C</p>
20	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 distorted</p> <p>B. The coil is rotated</p> <p>C. The coil is neither distorted nor rotated</p> <p>D. Both A and B</p> <p>E. None of these</p>