

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 feild D. Constant electric field E. None of these
2	What is the coefficient of mutual inductance, when the magnetic flux changes by 2 \times 10 ⁻² Wb, and change in current is 0.01 A?	A. 2 H B. 3 H C. 1/2 H D. Zero
3	The induced current in a conductor depends upon	A. Resistance of the loop B. Speed with which the conductor moves C. Any of these D. Both A and B E. None of these
4	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 D. Self inductance
5	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 D. Both (A) and (B) E. None of these
6	A metal road of length 1m is moving at a speed of 1 ms $^{-1}$ ln a direction making angle of 30° with 0.5 Y magnetic field. The emf produced in the rod is:	A. 0.25 N B. 0.25 V C. 2.5 V D. 2.5 N E. 25 V
7	Michael 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
8	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
9	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
10	For inducting 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
11	Lenz's law is the consequence of	A. Mass B. Energy conservation C. Momentum conservation D. Charge
12	The direction of induced current is always so as to oppose the cause which produces it. This is	A. Lenz's law B. Ampere's law C. Faraday's law D. Coulomb's law E. None of these
13	In the equilibrium state, the potential difference between two ends of the conductor moving across a magnetic field is called:	A. Motion emf B. Electrostatic emf C. Induced emf D. Both A and B E. Both A and C

14	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
15	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
16	Eddy current is produced when:	A. A metal is kept in varying magnetifield B. A metal is kept in steady magnetic field C. A circular coil is placed in a stead magnetic field D. A current is passed through a circular coil
17	The law of electromagnetic induction is related to:	A. Coulomb B. Ampere C. Faraday D. Lenz E. None of these
18	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
19	Back emf is produced due to	A. Self induction B. Mutual induction C. A.C D. Lenz's law
20	Referring to above figure, current in coil P falls from its maximum value to zero	A. At the instant the switch is closed B. At the instant the switch is opened C. When switch is kept open D. When switch is kept closed E. None of these