

## Physics ECAT Pre Engineering 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	A. Lenz's law B. Ampere's law C. Faraday's law D. Coulomb's law E. None of these
2	Faraday's law of electromagnetic induction has been used in the construction of:	A. Galvanometer B. Voltmeter C. Electric motor D. <b>Electric generator</b> E. Commutator
3	The law of electromagnetic induction is related to:	A. Coulomb B. Ampere C. <b>Faraday</b> D. Lenz E. None of these
4	The rate change of area expressed is expressed in:	A. None of these B. $ms^{-1}$ C. $m^2s^{-2}$ D. $ms^{-2}$ E. $m^2s^{-1}$
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:	A. Also $20^\circ$ B. $70^\circ$ C. $90^\circ$ D. $180^\circ$ E. None of these
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:	A. Zero B. Of smaller magnitude C. Of larger magnitude D. Sometimes B, sometimes C E. Neither of these
7	A metal road 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:	A. 0.25 N B. <b>0.25 V</b> C. 2.5 V

- 8 Motional emf is called motional:
- A. Electromagnetic force and is measured in newtons  
B. Electromotive force and is measured in volt  
C. Electromotive force and is measured in newtons  
D. Electromagnetic force and is measured in volts  
E. None of these
- 
- 9 When the conductor moved across a magnetic field:
- A. Emf induced is similar to that of a battery

<span style="font-size:12.0pt; line-height:107%;font-family:&quot;Times New Roman&quot;,&quot;serif&quot;"><o:p></o:p></span></p>

B. Emf induced gives rise to induced current

<span style="font-size:12.0pt; line-height:107%;font-family:&quot;Times New Roman&quot;,&quot;serif&quot;"><o:p></o:p></span></p>

C. An emf induced across its ends

<span style="font-size:12.0pt; line-height:107%;font-family:&quot;Times New Roman&quot;,&quot;serif&quot;"><o:p></o:p></span></p>

D. All are correct

<span style="font-size:12.0pt; line-height:107%;font-family:&quot;Times New Roman&quot;,&quot;serif&quot;"><o:p></o:p></span></p>

E. None of these

<span style="font-size:12.0pt; line-height:107%;font-family:&quot;Times New Roman&quot;,&quot;serif&quot;"><o:p></o:p></span></p>
- 
- 10 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
- 
- 11 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
- 
- 12 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
- 
- 13 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)
- 
- 14 The induced current is 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
- 
- 15 The phenomenon of generation of induced emf is called
- A. Electrostatic induction  
B. Magnetic induction  
C. Electromagnetic induction  
D. Electric induction

