

## Physics ECAT Pre Engineering MCQ's Test For Full Book

Sr	Questions	Answers Choice
1	When the magnitude of two component vectors are equal to that of their resultant, then the angle between the components is:	<p>A. <math>60^\circ</math></p> <p>B. <math>90^\circ</math></p> <p>C. <math>120^\circ</math></p> <p>D. <math>150^\circ</math></p>
2	In YDS experiment, fringe spacing means the distance between two consecutive ____ fringes.	<p>A. Bright</p> <p>B. Dark</p> <p>C. Any of A and B</p> <p>D. None of these</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	Lorentz force is defined as	<p>A. <math>q(E + V \times B)</math></p> <p>B. <math>q(E \times B + V)</math></p> <p>C. <math>q(E \times V + B)</math></p> <p>D. <math>q(E \times B)</math></p>
5	A tight wire is clamped at two points 2.0 m apart. It is plucked near one end. Which are the three longest wavelengths present on the vibrating wire.	<p>A. 2.0 m, 1m, 0.67 m</p> <p>B. 4.0 m, 2.0 m, 1m</p> <p>C. 4.0 m, 2.0 m, 1.33 m</p> <p>D. 1m, 0.5 m, 0.33 m</p>
6	Crests and troughs are formed in:	<p>A. Longitudinal waves</p> <p>B. Transverse waves</p> <p>C. Both of these</p> <p>D. None of these</p>
7	In metallic crystals which of the following thing remains constant	<p>A. amplitude of oscillations</p> <p>B. temperature of solid</p> <p>C. average atomic positions</p> <p>D. all of them</p>
8	Which of the following diode is used to derive the current in external circuit when light is incident in the circuit	<p>A. photo diode</p> <p>B. light emitting diode</p> <p>C. photo voltaic cell</p> <p>D. none of these</p>
9	An emf is set up in a conductor when it	<p>A. Is kept in a magnetic field</p> <p>B. Is kept in an electric field</p> <p>C. Moves across a magnetic field</p>

9	An emf is set up in a conductor when it	<p>C. moves across a magnetic field</p> <p>D. Both A and B</p> <p>E. None of these</p>
10	Fog droplets are suspended in air when their weight is balanced by:	<p>A. Force of gravity</p> <p>B. Upward thrust due to air</p> <p>C. Surface tension</p> <p>D. None of these</p>
11	In radio-active decay, the original element which disintegrate to another element is called	<p>A. element</p> <p>B. daughter element</p> <p>C. parent element</p> <p>D. none of these</p>
12	The resistance of 20 cm long wire is $10\Omega$ . When the length is changed to 40 cm. The new resistance is	<p>A. <math>10\Omega</math></p> <p>B. <math>20\Omega</math></p> <p>C. <math>30\Omega</math></p> <p>D. <math>40\Omega</math></p>
13	When body moves along a circular path with constant speed, it has an acceleration, which is always directed;	<p>A. Along the tangent</p> <p>B. Towards the centre</p> <p>C. Away from the centre</p> <p>D. None of them</p>
14	In the doping process, the ratio of the doping atoms to the semi conductor atom is	<p>A. 1 to 10</p> <p>B. <math>1</math> to <math>10^3</math></p> <p>C. <math>1</math> to <math>10^6</math></p> <p>D. <math>1</math> to <math>10^9</math></p>
15	Velocity of particle executing SHM will be maximum at	<p>A. Extreme position</p> <p>B. Mean position</p> <p>C. b/w mean and extreme</p> <p>D. None</p>
16	The substances in which, atom are so oriented that their fields support each other and the atoms behave like tiny magnets, are called	<p>A. diamagnetic substances</p> <p>B. ferromagnetic substances</p> <p>C. paramagnetic substances</p> <p>D. all of them</p>
17	'K' is the proportionality constant of force experienced by conductor. What is the value of 'K' in SI units?	<p>A. 0</p> <p>B. 1</p> <p>C. 0.5</p> <p>D. -1</p>
18	An aircraft is moving with a velocity of $300\text{ ms}^{-1}$ . If all the forces acting on it are balanced, then	<p>A. It still moves with the same velocity</p> <p>B. It will be just floating at the same point in space</p> <p>C. It will be fall down instantaneously</p> <p>D. It will lose its velocity gradually</p>
19	Within each domain, the magnetic field of all the spinning electrons are	<p>A. parallel</p> <p>B. antiparallel</p> <p>C. perpendicular</p> <p>D. all of them</p>
20	Light year is a unit of:	<p>A. Time</p> <p>B. Distance</p> <p>C. Velocity</p> <p>D. Intensity of light</p>