

Physics ECAT Pre Engineering MCQ's Test For Full Book

Sr	Questions	Answers Choice
1	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
2	A semi-conductor in its extremely pure form is known as	A. extrinsic semi-conductor B. intrinsic semi-conductor C. either of them D. none of them
3	A person is sitting in a traveling train and facing the engine. He tosses up a coin and the coin falls behind him. It can be concluded that the train is	A. Moving forward and gaining speed B. Moving forward and losing speed C. Moving forward with uniform speed D. Moving backward with uniform speed
4	R.M.S velocity of a particle is V at pressure P. If pressure increases by two times, then R.M.S velocity becomes	A. 2V B. 3V C. 0.5V D. V
5	The mass of an object will be doubled at speed	A. $1.6 \times 10^8 \text{ ms}^{-1}$ B. $2.6 \times 10^8 \text{ ms}^{-1}$ C. $2.6 \times 10^7 \text{ ms}^{-1}$ D. $2.6 \times 10^9 \text{ ms}^{-1}$
6	When a shell explodes in mid-air, the total momentum of its fragments is	A. less than the momentum of shell B. equal to the momentum of shell C. greater than the momentum of shell D. none of them
7	The rectangular components of a vector are equal in magnitude when the vector makes an angle _____ with their x-component:	A. 0° B. 30° C. 45° D. 60°
8	If the ratio of densities of two gases is 1:4, then the ratio of their rates of diffusion into one another is	A. 2 : 1 B. 4 : 1 C. 1 : 4 D. 3 : 4
9	For the virtual image, option _____ is not correct:	A. $1/p = 1/f - 1/q$ B. $1/f = 1/p - 1/q$ C. $1/p = 1/f + 1/q$ D. $1/p = 1/f - 1/q$
10	In a voltmeter the conduction takes place due to	A. Electrons only B. Holes only C. Electrons and holes

11 A fluid at a certain point has 50 J of potential energy per unit volume, 75 J of kinetic energy per unit volume, and 35 J of pressure energy per unit volume. the total energy of the fluid is

A. 125 J
B. 90 J
C. 160 J
D. 85 J

12 An inkjet printer uses in its operation:

A. *<p class="MsoNormal">Neutrons only</p></o:p></p>*
B. *<p class="MsoNormal">Mesons only</p></o:p></p>*
C. *<p class="MsoNormal">Positrons and photons</p></o:p></p>*
D. <p class="MsoNormal">An electric charge</p></o:p></p>
E. *<p class="MsoNormal">None of these</p></o:p></p>*

13 The process which is carried out at constant temperature is known as

A. adiabatic process
B. isothermal process
C. isochoric process
D. none of them

14 The loudness and pitch of a sound note depends on

A. Intensity and velocity
B. Frequency and velocity
C. Intensity and frequency
D. Frequency and number of harmonic

15 Light year is a unit of

A. Time
B. Distance
C. Velocity
D. Intensity of light

16 Which of the following is/are example/s if mechanical waves i.e. waves generated in _____:

A. Rope
B. Coil of spring
C. Water
D. All of them

17 The frequency of free vibrations is known as

A. free frequency
B. forced frequency
C. natural frequency
D. un-natural frequency

18 The body passing a viscous medium affected by:

A. One force only
B. Two forces only
C. Four forces
D. None of these

19 Compton derived an expression to find compton shift by applying to the process, the law of conservation of:

A. Energy only
B. Momentum only
C. Mass only
D. Charge only
E. Both (A) and (B)

20 The velocity of falling raindrops attains limited value because of

A. Up thrust of air
B. Air currents of the earth atmosphere
C. Surface tension effect
D. Viscous force exerted by air