

Physics ECAT Pre Engineering MCQ's Test For Full Book

Sr	Questions	Answers Choice
1	In compressional wave, the layer of medium having reduced pressure is called:	A. Compression B. Elasticity C. Node D. Rarefaction
2	In which of the following diodes when an electron combines with a hole during the forward biasing, photon of visible light is emitted.	A. photo diode B. light emitting diode C. photo voltaic cell D. all of them
3	While deriving equation of pressure by kinetic theory of gases, we take into account:	A. Only linear motion of molecules B. Only rotational motion C. Only vibratory motion D. All of these
4	Which of the following is/are example/s of mechanical waves i.e. waves generated in _____:	A. Rope B. Coil of spring C. Water D. All of them
5	An alpha particle has a charge of	A. +2e B. -2e C. -e D. +3e
6	A ball falls on the surface from 10 m height and rebounds to 2.5 m. if the duration of contact with the floor is 0.01 seconds then the average acceleration during contact is	A. 2100 m/s^2 B. 1400 m/s^2 C. 700 m/s^2 D. 400 m/s^2
7	In case of planets, the necessary acceleration is provided by:	A. Gravitational force B. Coulomb force C. Frictional force D. None of these
8	A virtual image is formed when object is placed:	A. Within focal length of a convex lens B. Near the focal point of a concave lens C. Both A and B D. Away from 2F of a convex lens
9	A flywheel accelerates from rest to an angular velocity of 7 rad/sec in 7 seconds. Its average acceleration will be:	A. 49 rad/sec^2 B. 1 rad/sec^2 C. 0.16 rev/sec^2 D. Both A and C E. Both B and C
10	In solids, only following type/s of wave can travel:	A. Transverse B. Longitudinal C. Both A and B D. None of them
11	A closed surface contains two equal and opposite charges. The net electric flux from the surface will be	A. Negative B. Positive C. Infinite D. Zero
12	An irreversible heat flow from a hot to cold substances of a system, causes the disorder to	A. decrease B. remains the same C. increase D. any one of them
13	The stopping voltage for a certain metal is 100 volts, then the work function for the cathode plate is	A. 100 J B. $1.6 \times 10^{-17} \text{ J}$ C. 100 eV D. $1.6 \times 10^{-17} \text{ eV}$
14	Which of the following diodes can operate in the reverse biased condition	A. photo diode B. light emitting diode C. photo voltaic cell D. none of these

15	A current carrying conductor sets up its own:	<p>New</p> <p>Roman&quot;, &quot; serif&quot; ">Electric field<o:p></o:p></p></p> <p>B. <p class="MsoNormal" style="text-align: justify"><span style="font-size: 12.0pt; line-height: 107%; font-family: &quot; Times New</p> <p>Roman&quot;, &quot; serif&quot; ">Nuclear field<o:p></o:p></p></p> <p>C. <p class="MsoNormal" style="text-align: justify"><span style="font-size: 12.0pt; line-height: 107%; font-family: &quot; Times New</p> <p>Roman&quot;, &quot; serif&quot; ">Magnetic field<o:p></o:p></p></p> <p>D. <p class="MsoNormal" style="text-align: justify">Both (A) and (C)<o:p></o:p></p></p> <p>E. All of these</p>
16	The horizontal component of a projectile moving with initial velocity of 500 ms^{-1} at an angle 60° to x-axis is	<p>A. 500 ms^{-1}</p> <p>B. 1000 ms^{-1}</p> <p>C. 250 ms^{-1}</p> <p>D. Zero</p>
17	If we increase the distance between two plates of the capacitor, the capacitance will	<p>A. Increase</p> <p>B. Decrease</p> <p>C. Remain same</p> <p>D. First increase then decrease</p>
18	The special theory of relativity is based on:	<p>A. Four postulates</p> <p>B. Three postulates</p> <p>C. Two postulates</p> <p>D. One postulate</p> <p>E. None of these</p>
19	An angle of 180° in circular motion is equivalent to _____ in SHM.	<p>A. Half the vibration</p> <p>B. One vibration</p> <p>C. 3/4th of a vibration</p> <p>D. None of these</p>
20	A reversible cycle is the one in which	<p>A. some of the changes are reversible</p> <p>B. all of the changes are reversible</p> <p>C. all of the changes are irreversible</p> <p>D. none of them</p>