ECAT Physics Online Test

Sr	Questions	Answers Choice
1	If a car rest acceleration uniformly to a speed of 144 km/h in 20 s it covers a distance of	A. 20 m B. 400 m C. 1440 m D. 2880 m
2	One coulomb of charge is created by	A. 10 electrons B. 1.6×10^{-19} electrons C. 6.25×10^{18} electrons D. 6.25×10^{21} electrons
3	The force acting on a charge moving in a magnetic field	A. is perpendicular to the both magnetic field and direction of motion B. is proportional to the magnetic of charges C. vanishes when the motion is directly opposite to the direction of field D. all of the above
4	In a cubic crystal, All solids meet at:	A. 60° B. 90° C. 109° D. 30° E. 10°
5	A train of 150 m length is going towards north direction at a speed of 10 ms^{-1}. A parrot files at a speed of 5 ms^{-1} towards south direction parallel to the railway track. The time taken by the parrot to cross the train is equal to	A. 12 s B. 8 s C. 15 s D. 10 s
6	A tube is tapered from 20 cm diameter to 2 cm diameter, the velocity at the first cross-section is 50 cm/s, then the velocity at the second cross-section is	A. 50 m/s B. 20 m/s C. 40 cm/s D. 5 cm/s
7	If a train traveling at 72 kmph is to be brought to rest in a distance of 200 meters then its retardation should be	A. 20 ms^{-2} B. 10 ms^{-2} C. 2 ms^{-2} D. 1 ms^{-2}
8	When half of the cycle of a body executing S.H.M is completed, then the phase of the vibration will be	A. $45°$ B. $90°$ C. $135°$ D. $180°$
9	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
10	By which velocity a ball be projected vertically so that the distance covered by it in 5th seconds is twice the distance it covers in its 6th second (g=10m/s^2)	A. 58.8 m/s B. 49 m/s C. 65 m/s D. 19.6 m/s
11	Examples of moderators used in a fission reactor is/are:	A. Water B. Heavy water C. Carbon D. Hydrocarbon E. All of these
12	A body walks to his school at a distance of 6 km with a speed of 2.5 km/h and walks back with a constant speed of 5 km/h. His average speed for round trip expressed in km/h is	A. 24/13 B. 10/3 C. 3 D. 4,8
		A. <p class="MsoNormal"><span style="font-size:12.0pt;line-

#	Question	Options
13	Electrostatics is the branch of physics which deals with the study of electro charges:	A. `<p class="MsoNormal"><span style="font-size:12.0pt;line-height:107%;font-family: "Times New Roman&quot,"serif"">At rest<o:p></o:p></span></p>` B. `<p class="MsoNormal"><span style="font-size:12.0pt;line-height:107%;font-family: "Times New Roman&quot,"serif"">At rest under the action of electric forces<o:p></o:p></span></p>` C. `<p class="MsoNormal"><span style="font-size:12.0pt;line-height:107%;font-family: "Times New Roman&quot,"serif"">In motion under the action of electric forces<o:p></o:p></span></p>` D. `<p class="MsoNormal"><span style="font-size:12.0pt;line-height:107%;font-family: "Times New Roman&quot,"serif"">In motion<o:p></o:p></span></p>` E. `<p class="MsoNormal"><span style="font-size:12.0pt;line-height:107%;font-family: "Times New Roman&quot,"serif"">At rest under the action of nuclear forces<o:p></o:p></span></p>`
14	The SI unit of capacitance is	A. Farad B. Henry C. Ohm D. Volt
15	Op-amp has been discussed as comparator of:	A. Distances B. Voltages C. Velocities D. Magnetic fields E. Both (A) and (C)
16	CRO deflects the beam of	A. proton B. a-particle C. electron D. neutron
17	Avo-meter is used of measure the	A. current, voltage B. voltage, resistance C. resistance, current D. current, voltage and resistance
18	A 10 F capacitor is charged to a potential difference of 50 V and is connected to another uncharged capacitor in parallel. Now the common potential difference becomes 20 volt.The capacitance of second capacitor is	A. 10`<span style="color: rgb(34, 34, 34); font-family: "Times New Roman"; font-size: 24px; text-align: center; background-color: rgb(255, 255, 224);">µ</span>`F B. 20`<span style="color: rgb(34, 34, 34); font-family: "Times New Roman"; font-size: 24px; text-align: center; background-color: rgb(255, 255, 224);">µ</span>`F C. 30`<span style="color: rgb(34, 34, 34); font-family: "Times New Roman"; font-size: 24px; text-align: center; background-color: rgb(255, 255, 224);">µ</span>`F D. 15`<span style="color: rgb(34, 34, 34); font-family: "Times New Roman"; font-size: 24px; text-align: center; background-color: rgb(255, 255, 224);">µ</span>`F
19	Which of the following can become a good temporarily magnet	A. iron B. steel C. both of them D. none of them
20	A current carrying conductor is placed at right angle to the magnetic field. The magnetic force experienced by the conductor is	A. minimum B. maximum C. zero D. none of these