# ECAT Pre General Science Physics Online Test

| Sr | Questions | Answers Choice |
|---|---|---|
| 1 | The work done on the system by the environment is considered as | A. positive<br>B. negative<br>C. zero<br>D. any one of them |
| 2 | Slope of velocity-time graph represents: | A. Acceleration<br>B. Speed<br>C. Torque<br>D. Work |
| 3 | A ball is dropped from a height of 4.2 meters. To what height it will rise if there is no loss of KE after rebounding? | A. 4.2 m<br>B. 8.4<br>C. 12.6<br>D. None of these |
| 4 | The number of translation degress of freedom for a diatomic gas is | A. 2<br>B. 3<br>C. 5<br>D. 6 |
| 5 | Step up transformer has a transformation ratio of 3:2. What is the voltage in secondary, if voltage in primary is 30V: | A. 45 V<br>B. 15 V<br>C. 90 V<br>D. 300 V |
| 6 | The rear wheels of an automobile are rotating with an angular velocity of 14 rev/sec which is reduced to 38 rad/sec in 5 second when brakes are applied. Its angular acceleration is: | A. 5 rad/sec<sup>2</sup><br>B. -10 rev/sec<sup>2</sup><br>C. -10 rad/sec<sup>2</sup><br>D. -5 rev/sec<sup>2</sup> |
| 7 | Particles have the mass smallest of following is: | A. Electron<br>B. Proton<br>C. Neutron<br>D. Quark |
| 8 | A wave, which transfer energy by moving away from the source of disturbance is called a | A. progressive wave<br>B. travelling wave<br>C. both of them<br>D. none of them |
| 9 | Neutrons are | A. positive charge<br>B. negatively charged<br>C. massless<br>D. neutral |
| 10 | The vector is space has: | A. One Component<br>B. Two Compnents<br>C. Three Components<br>D. Non of these |
| 11 | Fluids have three types of energies. The Bernoulli's equation combines those energies.which of the following is one of the three enrgies possessed by a fluid? | A. potential energy<br>B. pressure energy<br>C. strain energy<br>D. (a) and (b) only |
| 12 | The kinetic energy of one molecule of a gas at normal temperature and pressure will be (k = 8.31 J/mole K) : | A. 1.7 x 10<sup>3</sup>J<br>B. 10.2 x 10<sup>3</sup>J<br>C. 3..4 x 10<sup>3</sup>J<br>D. 6.8 x 10<sup>3</sup>J |
| 13 | The fluid is incompressible, if itsdensity is | A. zero<br>B. constant<br>C. very high<br>D. very small |
| 14 | The wave motion set up in any medium depends upon: | A. Elasticity<br>B. Inertia<br>C. Density<br>D. All of these |
| 15 | Braking radiation causes: | A. Continuous spectrum<br>B. Line Spectrum<br>C. Band spectrum<br>D. Discrete specturm |

| | | |
|---|---|---|
| | | E. All of these |
| 16 | Instead of moving the coil towards a magnet, the magnet is moved towards the coil with the same speed. The galvanometer shows current | A. Of same magnitude in the same direction<br>B. Of different magnitude in the same direction<br>C. Of same magnitude but in opposite direction<br>D. Of different magnitude in the opposite direction<br>E. None of these |
| 17 | The passage of current is accompanied by a magnetic field in the surrounding space: | A. Always accompanied<o:p></o:p> <br>B. Sometimes accompanied<o:p></o:p> <br>C. Never accompanied<o:p></o:p> <br>D. Any of above <br><o:p></o:p> <br>E. None of these<o:p></o:p> |
| 18 | At ordinary temperature, an increase in temperature increases the conductivity of | A. Conductor<br>B. Semiconductor<br>C. Insulator<br>D. Alloy |
| 19 | Electrostatics is the branch of physics which deals with the study of electro charges: | A. At rest<o:p></o:p> <br>B. At rest under the action of electric forces<o:p></o:p> <br>C. In motion under the action of electric forces<o:p></o:p> <br>D. In motion<o:p></o:p> <br>E. At rest under the action of nuclear forces<o:p></o:p> |
| 20 | The electric field will be uniform | A. Near a positive point charge<br>B. Near a negative point charge<br>C. Between two oppositely charged parallel metal plates<br>D. None of above |