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

| Sr | Questions | Answers Choice |
|---|---|---|
| 1 | Which of the following changes at an antinode in a stationary wave? | A. Density only<br>B. Pressure only<br>C. Both pressure and density<br>D. Neither pressure nor density |
| 2 | Computer chips are made from | A. Conductors<br>B. Semiconductors<br>C. Insulators<br>D. Both A and B |
| 3 | In a heat engine, heat is supplied by the | A. cold reservoir<br>B. sink<br>C. hot reservoir<br>D. none of them |
| 4 | An oscillating body oscillates due to: | A. Applied force<br>B. Restoring force<br>C. Frictional force<br>D. None of these |
| 5 | An ordinary glass gradually softens into a 'paste -like' state before it becomes a very viscous liquid. It happens almost at: | A. 800<sup>o</sup>C<br>B. 500<sup>o</sup>C<br>C. 300<sup>o</sup>C<br>D. 100<sup>o</sup>C<br>E. None of these |
| 6 | Absolute temperature can be calculated by | A. Means squares velocity<br>B. Motion of the molecule<br>C. Both A and B<br>D. None of these |
| 7 | A spring of constant k = 0.4 N $m^{-1}$is to be extended through 10 cm at a place where g = 10 m $sec^{-2}$. The mass to be suspended should be: | A. 4 gms<br>B. 0.4 gm<br>C. 40 gms<br>D. None of these |
| 8 | The field in which work done is moving body between two points depends upon the path followed is called: | A. Conservative filed<br>B. Non-conservative field<br>C. Electric field<br>D. None of these |
| 9 | A resistance used in galvanometer to make it voltmeter is called | A. shunt resistance<br>B. high resistance<br>C. zero resistance<br>D. none of these |
| 10 | In describing function of digital systems, 1 represents: | A. Closed switch<br>B. True Statement<br>C. Lighted bulb<br>D. Only (B) and (C)<br>E. All are true |
| 11 | 1 amu is equal to. | A. 1.66 x 10<sup>-24</sup>kg<br>B. 1.66 x 10<sup>-19</sup>kg<br>C. 1.66 x 10<sup>-24</sup>kg<br>D. 1.66 x 10<sup>-27</sup>kg |
| 12 | In a semi-conductor material, current flows due to | A. positive charge<br>B. negative charge<br>C. both of them<br>D. none of them |
| 13 | A wire of radius r has resistance R. If it is stretched to a wire of r/2 radius, then the resistance becomes | A. 2R<br>B. 4R<br>C. 16R<br>D. Zero |
| 14 | According to Einstein, with the great increase in the speed of the body the relativistic length of the body | A. Remains constant<br>B. Decreases<br>C. Increases<br>D. Reduces to zero |
| | | A. linear motion with increasing acceleration<br>B. line motion with uniform |

| | | |
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| 15 | The three equation of motions are useful only for | acceleration<br>C. linear motion with zero acceleration<br>D. linear motion with varying acceleration |
| 16 | When a force is applied on a body, several effects are possible Which of the following effect could not occur? | A. the body rotates<br>B. the body speeds up<br>C. the mass of the body decreases<br>D. the body changes its direction |
| 17 | The reactance of a cell changes directly with | A. frequency of a.c<br>B. the inductance<br>C. both a and b<br>D. none of these |
| 18 | At constant volume temperature is increased. Then | A. Collision on walls will be less<br>B. Number of collisions per unit time will increase<br>C. Collision will be in straight lines<br>D. Collision will not change |
| 19 | A stone is tied to the end of a 20 cm along string is whirled in a horizontal circle.<br>if centripetal acceleration is 9.8 m/sec$^2$, then its angular velocity in rad/sec is: | A. 22/7<br>B. 7<br>C. 14<br>D. 21 |
| 20 | A bar 1.0 m in length and located along x-axix moves with a speed of 0.75 c with respect to a stationary observer. The length of the bar as measured by the stationary observer is | A. 1.66 m<br>B. 1.0 m<br>C. 0.66 m<br>D. 2.66 m |