

ECAT Physics Online Test

| Sr | Questions | Answers Choice |
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| 1 | Physicist George Simon ohm was a | <p>A. German physical</p> <p>B. French physicist</p> <p>C. Chinese physicist</p> <p>D. Russian physicist</p> |
| 2 | When heat is removed from the system | <p>A. negative</p> <p>B. positive</p> <p>C. zero</p> <p>D. any one of them</p> |
| 3 | The example of reversible process is | <p>A. an explosion</p> <p>B. changes occur suddenly</p> <p>C. slow compression of a gas</p> <p>D. all of them</p> |
| 4 | For Protium, the mass defect is: | <p>A. Infinite</p> <p>B. Zero</p> <p>C. Very large</p> <p>D. A few grams</p> <p>E. None of these</p> |
| 5 | When two progressive waves of nearly same frequencies superimpose and give rise to beats, then | <p>A. Frequency of beat changes with time</p> <p>B. Frequency of beat changes with location of observer</p> <p>C. All particles of medium vibrate simple harmonically with frequency equal to the difference between frequencies of component waves</p> <p>D. Amplitude of vibration of particles at any point changes simple harmonically with frequency equal to difference between two component waves</p> |
| 6 | If the amplitude of sound is doubled and the frequency reduced to one-fourth, the intensity of sound at the same point will be | <p>A. Increasing by a factor of 2</p> <p>B. Decreasing by a factor of 2</p> <p>C. Decreasing by a factor of 4</p> <p>D. Unchanged</p> |
| 7 | Silicon is one of the most commonly used: | <p>A. conductor</p> <p>B. Dielectric</p> <p>C. Insulator</p> <p>D. Semiconduction</p> <p>E. Both (B) and (C)</p> |
| 8 | A high concentration of red blood cells increases its viscosity from | <p>A. 3 - 5 times that of mercury</p> <p>B. 5 - 8 times that of mercury</p> <p>C. 3 - 5 times that of water</p> <p>D. 5 - 8 times that of water</p> |
| 9 | Static electricity is produced by the transfer of: | <p>A. <p class="MsoNormal">Electrons</p></p> |

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| 10 | The vibratory motion of a body whose magnitude of acceleration is directly proportional to the magnitude of its displacement and is always directed towards the equilibrium position is called | A. rotatory motion B. motion under gravity C. angular motion D. simple harmonic motion |
| 11 | The length of a metallic rod is 5 meter at 100°C. The coefficient of cubical expansion of the metal will be | A. $2.0 \times 10^{-5} \text{ } ^\circ\text{C}^{-1}$ B. $4.0 \times 10^{-5} \text{ } ^\circ\text{C}^{-1}$ C. $6.0 \times 10^{-5} \text{ } ^\circ\text{C}^{-1}$ D. $2.33 \times 10^{-5} \text{ } ^\circ\text{C}^{-1}$ |
| 12 | The total energy of spring mass system is | A. zero B. changing with time C. constant D. none of them |
| 13 | On the power stroke, a spark fires the mixtures causing a rapid increase in pressure and temperature and the burning mixture expands | A. adiabatically B. isothermally C. isochorically D. isobarically |
| 14 | If we connected the ordinary DC ammeter to measure alternating current, it would measure its: | A. Instantaneous value B. RMS value C. Value averaged over a cycle D. Either (B) or (C) E. Either (A) or (C) |
| 15 | At 0° K which of the following properties of a gas will be zero? | A. Kinetic energy B. Potential energy C. Vibrational energy D. Density |
| 16 | A body is thrown from a height h with speed u, it hits the ground with speed V | A. The value of V is maximum if the body is thrown vertically downward B. The value of V is maximum if the body is thrown vertically upwards C. The value of V is minimum if the body is thrown horizontally D. The value of V does not depend on the direction of which it is thrown |
| 17 | The number of isotopes of hydrogen are | A. 2 B. 1 C. 3 D. 4 |
| 18 | The electric intensity at infinite distance from the point charge will be | A. Infinite B. Positive C. Zero D. Negative |
| 19 | A tube tapers from 20 cm diameter to 2 cm, the velocity at first cross-section is 50 ms ⁻¹ then velocity at second cross-section is | A. 5000 cms ⁻¹ B. 500 cms ⁻¹ C. 50 cms ⁻¹ D. 0.5 cm/s |
| 20 | If both the inputs given to a gate are 1 such that the output is 0, then it is: | A. AND gate B. NOR gate C. OR gate D. NOT gate E. Both (A) and (C) |