

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

| Sr | Questions   | Answers Choice  |
|----|---|---|
| 1  | Surface tension of water is due to  | A. Inter molecular attractions<br>B. Inter molecular spaces<br>C. Inter molecular repulsion<br>D. None of above |
| 2  | Radioactivity was discovered by:  | A. Becquerel<br>B. Marie curie<br>C. Pierre curie<br>D. All of them<br>E. None of these                         |
| 3  | SI unit of frequency is   | A. second<br>B. hertz<br>C. revolution<br>D. vibrations/sec   |
| 4  | If 42 J heat is transferred to the system and the work done by the system is 32 J then what will be the change in internal energy       | A. 0 J<br>B. 2 J<br>C. 5 J<br>D. 10 J   |
| 5  | Which one of the least multiple:  | A. Pico<br>B. Femto<br>C. Nano<br>D. Alto   |
| 6  | To turn the transistor OFF, the base current is set:  | A. At maximum value<br>B. At zero<br>C. Either (A) or (B)<br>D. All are correct<br>E. None of correct           |
| 7  | The direction of vector in space is specified by:   | A. One angle<br>B. Two angles<br>C. Three angles<br>D. None of above  |
| 8  | A magnetic force on an electron travelling with $10^8 \text{ ms}^{-1}$ parallel to a field of strength $1 \text{ Wb m}^{-2} \text{ is}$ | A. Zero<br>B. $10^5 \text{ N}$<br>C. $10^{-10} \text{ N}$<br>D. $10^8 \text{ N}$                                |
| 9  | Alpha particles are   | A. hydrogen nuclei<br>B. helium nuclei<br>C. electrons<br>D. photons  |
| 10 | When the pn-junction is connected reversed biased, its resistance is of the order of  | A. few ohms<br>B. few kilo-ohms<br>C. few mega-ohms<br>D. few milli-ohms  |
| 11 | In a voltmeter the conduction takes place due to  | A. Electrons only<br>B. Holes only<br>C. Electrons and holes<br>D. Electrons and ions                           |
| 12 | When two protons are brought closer potential energy of both of them:   | A. Increases<br>B. Decreases<br>C. Remains same<br>D. None of these   |
| 13 | The wave form of SHM is   | A. Pulsed wave<br>B. Square wave<br>C. Triangular wave<br>D. Sine wave  |
| 14 | At the constant temperature, if the value of a given mass of a gas is double, then the density of gas becomes:                          | A. Double<br>B. Remains constant<br>C. Half<br>D. None of these   |
| 15 | The direction of the streamlines is the same as the direction of the  | A. force<br>B. torque<br>C. velocity  |

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| 16 | Astrophysics is a branch of physics, which deals with:   | A. Sub-atomic particles<br>B. Stars and galaxies<br>C. Light and sound<br>D. Music                     |
| 17 | 0.1 kg mass will be equivalent to the energy   | A. $9 \times 10^{15}$ J<br>B. $5 \times 10^8$ J<br>C. $6 \times 10^{16}$ J<br>D. $9 \times 10^{-16}$ J |
| 18 | Ball pen functions on the principle of   | A. Viscosity<br>B. Boyle's law<br>C. Gravitational force<br>D. Surface tension                         |
| 19 | A water hose with an internal diameter of 20 mm at the outlet discharges 30 kg of water in 60 s. What is water speed at the outlet if density of water is $1000 \text{ kg/m}^3$ during its steady flow | A. 1.3 m/s<br>B. 1.6 m/s<br>C. 1.9 m/s<br>D. 2.2 m/s   |
| 20 | Which of the following is not mechanical wave?   | A. Sound wave<br>B. Light wave<br>C. <div>wave produced in spring</div><br>D. None of them             |

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