

Physics ECAT Pre Engineering MCQ's Test For Full Book

| Sr | Questions | Answers Choice |
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| 1 | An induced current can be produced by. | A. Constant magnetic field B. Changing magnetic field C. Varying magnetic field D. Constant electric field E. None of these |
| 2 | Albert Einstein got the Nobel prize in physics for his explanation of photoelectric effect in | A. 1916 B. 1919 C. 1921 D. 1923 |
| 3 | Charge to mass ratio (e/m) of an electron is given by the relation | A. $e/m = 2V/B$ B. $e/m = 2V/B^2$ C. $e/m = 2V/B^2 r$ D. $e/m = V/B^2 r^2$ |
| 4 | At constant temperature, on increasing the pressure of a gas by 5%, its volume. The final temperature of the gas will be | A. 81 K B. 355 K C. 627 K D. 627°C |
| 5 | The vector in space has: | A. One component B. Two components C. Three components D. None of these |
| 6 | The path described by a projectile is called its | A. orbit B. trajectory C. range D. distance |
| 7 | A current of 1 ampere is passing through a conductor. The charge passing through it in half a minute s | A. One coulomb B. 0.5 coulomb C. 30 coulombs D. 2 coulombs E. None of these |
| 8 | The mass of a body measured by a physical balance in a lift at rest is found to be m, if the lift is going up with an acceleration a, its mass will be measured as | A. $m(1 - a/g)$ B. $m(1 + a/g)$ C. m D. Zero |
| 9 | Gauss(G) is smaller unit of magnetic induction which is related to tesla(T) as | A. $IT = 10^{-4} G$ B. $IT = 10^{-5} G$ C. $IT = 10^{-3} G$ D. IT = 10^{-4} G |
| 10 | The photon of radio-waves has energy of about | A. 1 Me V B. 1 Ke v C. $10^{-10} eV$ D. $10^{-10} eV$ |
| 11 | To and fro motion of a body is about its mean position is known as: | A. Translatory motion B. Vibratory motion C. Rotatory motion D. None of these |
| 12 | One radian is: | A. Greater than one degree B. Less than one degree C. Equal to one degree D. None of these |
| 13 | The most common source of alternating voltage is: | A. Motor B. Transformer C. AC generator D. Both (A) and (C) E. Both (A) and (B) |
| | | A. BA |

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| 14 | <p>Magnetic flux passing through a element whose vector area makes an angle θ with lines of magnetic force is:</p> | <p style="text-align: right;"><small>font-size: 12pt; text-align: right;">justify;">Cosθ</small></p> <p>A. Zero</p> <p>C. BA</p> <p>D. BA sin</p> <p>E. None of these</p> |
| 15 | <p>Which branch of physics deals with the structure and properties of solids</p> | <p>A. Atomic Physics</p> <p>B. Plasma Physics</p> <p>C. Molecular Physics</p> <p>D. Solid state physics</p> |
| 16 | <p>The SI unit of permittivity is</p> | <p>A. $Nm^{-2}C^{-2}$</p> <p>B. $N^{-1}m^{-2}C^{-2}$</p> <p>C. NmC^{-2}</p> <p>D. $Nm^{-2}C^{-1}$</p> |
| 17 | <p>An aircraft is moving with a velocity of 300 ms^{-1}. If all the forces acting on it are balanced, then</p> | <p>A. It still moves with the same velocity</p> <p>B. It will be just floating at the same point in space</p> <p>C. It will fall down instantaneously</p> <p>D. It will lose its velocity gradually</p> |
| 18 | <p>Rate of diffusion is</p> | <p>A. Faster in solids than in liquids and gases</p> <p>B. Faster in liquids than in solids and gases</p> <p>C. Equal to solids, liquids and gases</p> <p>D. Faster in gases than in liquids and solids</p> |
| 19 | <p>Force acting upon a charged particle kept between the plates of a charged condenser is F. If one of the plates of the condenser is removed, force acting on the same will become</p> | <p>A. Zero</p> <p>B. $F/2$</p> <p>C. F</p> <p>D. $2F$</p> |
| 20 | <p>In an experiment the uncertainty in the value of a resistor is 2% furthermore, the uncertainty in the potential difference across the same resistor is 1% . The uncertainty in the power loss in the resistor is.</p> | <p>A. Approximately 3%</p> <p>B. Approximately 5%</p> <p>C. Approximately 4%</p> <p>D. Approximately 6%</p> |