

Physics ECAT Pre Engineering MCQ's Test For Full Book

| Sr | Questions | Answers Choice |
|----|---------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | In crystalline solids, atoms are held about their equilibrium positions depending upon the strength of: | A. Adhesive force B. Nuclear forces C. Inter atomic cohesive force D. Electromagnetic force E. None of these |
| 2 | During the projectile motion, the horizontal component of velocity | A. changes with time B. remains constant C. becomes zero D. decreases with time |
| 3 | According to slok's law, drag force depends on | A. Radius of the spherical body B. Terminal velocity of body C. Coefficient of viscosity D. All of above |
| 4 | The effect of applying a force on a moving body is to change | A. its direction of motion only B. its speed of motion only C. both the direction and speed of motion D. its inertia only |
| 5 | The velocity of sound is greatest in | A. Water B. Air C. Vacuum D. Metal |
| 6 | Amorphous solids are also more like | A. crystalline solids B. gases C. liquids D. any one of them |
| 7 | Tick the one which is not a crystalline solid: | A. Zirconia B. Glass C. Copper D. Ceramic solid E. An ionic compound |
| 8 | A capacitor of capacity $1\mu F$ is charged to 1 KV. The energy stored in J | A. 5 B. 0.5 C. 0.005 D. 50 |
| 9 | The area under line velocity-time graph is numerically equal to the | A. speed of the body B. acceleration of the body C. distance covered by the body D. none of them |
| 10 | The Space around the Earth within which it exerts a force of attraction on other bodies is known as | A. Nuclear field B. Conservative field C. Electric field D. Gravitational field |
| 11 | The values 1 and 0 are designated as: | A. Continuous values B. Binary values C. Boolean values D. Decimal values E. Either (B) and (C) |
| 12 | The path (or trajectory) described by a projectile is | A. a parabola B. a hyperbola C. a circle D. a straight line |
| 13 | The third band of the colour code: | A. Gives the number of zeroes B. Is decimal multiplier C. Gives the resistance tolerance D. Gives the third digit E. Both (A) and (B) |
| 14 | In the equation $E=mc^2$ value of c is: | A. 1,86,000 miles per hour B. 1,86,000 miles per sec C. 3×10^{8} m/sec D. Both A and C |

15 The entire wave form of sinusoidal voltage is actually a set of all the:

- A. Positive maximum value + $V_{\text{sub}}o$ and negative maximum value - $V_{\text{sub}}o$
- B. Positive maximum value + V_{sub} and zero
- C. Zero and negative maximum value - $V_{\text{sub}}o$
- D. Any of these
- E. None of these

16 When some compass needles are placed on a card board along a circle with the center at the wire, they will

- A.

Point the direction of N-S
- B.

Set themselves tangential to the circle
- C.

Point in the direction of E-W
- D.

None of these
- E.

Point in direction of S-E

17 de-Broglies hypothesis was experimentally verified by

- A. Maxwell
- B. Compton
- C. Einstein
- D. Davison and Germer

18 When a conductor is moved across a magnetic field, the redistribution of charge sets up:

- A. Magnetic field
- B. Electrostatic field
- C. Electromagnetic field
- D. All of these
- E. None of these

19 If the distance between the plates of a parallel plate condenser of capacity $10\mu\text{F}$ is doubled then new capacity will be

- A. $5\mu\text{F}$
- B. $20\mu\text{F}$
- C. $10\mu\text{F}$
- D. $15\mu\text{F}$

20 A cube of metal is given a positive charge Q . For the above system, which of the following statements is true?

- A. Electric potential at the surface of the cube is zero
- B. Electric potential within the cube is zero
- C. Electric field is normal to the surface of the cube
- D. Electric field varies within the cube