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

| Sr | Questions | Answers Choice |
|---|---|---|
| 1 | The flow of an ideal fluid is | A. streamline flow<br>B. incompressible flow<br>C. non-viscous<br>D. all of the above |
| 2 | If the number of turns of a solenoid (carrying a steady current I) is doubled without changing the length of a solenoid, then magnetic field: | A. Becomes Half<br>B. Becomes double<br>C. Is not affected<br>D. Becomes one fourth<br>E. None of these |
| 3 | The substance in which atoms are so oriented that the field produced by spin and orbital motion of the electrons might add up to zero,are called | A. diamagnetic substances<br>B. ferromagnetic substances<br>C. paramagnetic substances<br>D. all of them |
| 4 | The excess (equal in number) of electrons that must be placed on each of two small spheres spaced 3 cm apart, with force of repulsion between the spheres to be $10^{-19}$N, is | A. 25<br>B. 225<br>C. 625<br>D. 1250 |
| 5 | The only significant motion possessed by the mono-atomic gas represented is: | A. Translatory<br>B. Rotatory<br>C. Vibratory<br>D. None of these |
| 6 | The L-C parallel circuit the capacitor draws a | A. leading current<br>B. lagging current<br>C. main current<br>D. none of these |
| 7 | The irregular and unsteady flow of the fluid is called | A. turbulent flow<br>B. steady flow<br>C. either of them<br>D. both of them |
| 8 | A mass of 5kg moves with an acceleration of 10m $s^{-2}$force applied is | A. 10N<br>B. 50N<br>C. 2N<br>D. 20N |
| 9 | Resistor is a device which convert electric energy to | A. Heat energy<br>B. Chemical energy<br>C. Elastic energy<br>D. All of the above |
| 10 | It is possible to recognize a person by hearing his voice even if he is hidden behind a solid wall. This is due to the fact that his voice | A. Has a definite pitch<br>B. Has a definite quality<br>C. Has a definite capacity<br>D. Can penetrate the wall |
| 11 | A black body is | A. an ideal absorber<br>B. an ideal radiator<br>C. both of them<br>D. none of them |
| | | A. <span style="font-size:12.0pt;line-height:107%;font-family: "Times New Roman","serif";mso-fareast-font-family:"Times New Roman";mso-fareast-theme-font:minor-fareast">Circle<o:p></o:p> <br>B. <span style="font-size:12.0pt;line-height:107%;font-family: "Times New Roman","serif";mso-fareast-font-family:"Times New Roman";mso-fareast-theme-font:minor-fareast">Rectangle<o:p></o:p> <br>C. <span |

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| 12 | While finding the electric intensity at a point between two oppositely charged parallel plates, the Gaussian surface is taken in the form of a hollow: | style= font-size:12.0pt;line-height:107%;font-family: "Times New Roman","serif";mso-fareast-font-family:"Times New Roman";mso-fareast-theme-font:minor-fareast"><o:p></o:p> <br>D. <span style="font-size:12.0pt;line-height:107%;font-family: "Times New Roman","serif";mso-fareast-font-family:"Times New Roman";mso-fareast-theme-font:minor-fareast">Box<o:p></o:p> <br>E. <span style="font-size:12.0pt;line-height:107%;font-family: "Times New Roman","serif";mso-fareast-font-family:"Times New Roman";mso-fareast-theme-font:minor-fareast">Cylinder<o:p></o:p> |
| 13 | The unit of spring constant is: | A. J-sec<br>B. Metre<br>C. Nm<sup>-1</sup><br>D. None of these |
| 14 | The minimum wavelength of X-rays produced of 1KV potential difference is applied across the anode and cathode of the tube is | A. 1.24 x 10<sup>-10</sup>m<br>B. 7.92 x 10<sup>-20</sup>m<br>C. 2.78 x 10<sup>-14</sup>m<br>D. 3.88 x 10<sup>-11</sup>m |
| 15 | Distance covered by a freely falling body in 2 sec will be | A. 4.9 m<br>B. 19.6 m<br>C. 29.2 m<br>D. 44.1 m |
| 16 | A tube is tapered from 20 cm diameter to 2 cm diameter, the velocity at the first cross-section is 50 cm/s, then the velocity at the second cross-section is | A. 50 m/s<br>B. 20 m/s<br>C. 40 cm/s<br>D. 5 cm/s |
| 17 | Which one of the following wave motions is transverse: | A. Wave motion produced in water when a piece of stone is thrown into it<br>B. Pulling of weight hanging vertically with a spiral spring<br>C. Both of these<br>D. None of these |
| 18 | The sum of the magnitude of two forces acting at a point is 18 and the magnitude of their resultant is 12. If the resultant is at 90° with the force of the smaller magnitude, then their magnitudes are | A. 3, 15<br>B. 4, 14<br>C. 5, 13<br>D. 6, 12 |
| 19 | A ray passing through optical center of a lens, after refraction: | A. Passes through focus<br>B. Go deviated<br>C. Retraces its path<br>D. Both B and C |
| 20 | The unit of decay constant is: | A. Second<br>B. Metre<br>C. Hour<br>D. Year<br>E. Second<sup>-1</sup> |