

## MDCAT Physics Chapter 13 Deformation of Solids MCQ's Test

| Sr | Questions   | Answers Choice  |
|----|---|---|
| 1  | Strain is dimensionless and has   | A. Units<br>B. No units<br>C. S.I. units<br>D. None of these                        |
| 2  | For obtaining appreciable extension, the wire should be:  | A. Short and thin<br>B. Long and thin<br>C. Short and thick<br>D. Long and thick    |
| 3  | Examples of brittle substances are  | A. Glass<br>B. Copper<br>C. Lead<br>D. None of these                                |
| 4  | The Curie temperature of iron is  | A. 600 °C<br>B. 650 °C<br>C. 700 °C<br>D. 750 °C                                    |
| 5  | Acceptor impurities donate  | A. Holes<br>B. Electrons<br>C. Both Electrons and Holes<br>D. None of them          |
| 6  | The domains are the small regions of the order of   | A. Millimeter<br>B. Micrometer<br>C. Micron<br>D. None of these                     |
| 7  | Young's modulus for mercury is  | A. 0<br>B. 2<br>C. 5<br>D. 6  |
| 8  | The critical temperature $T_c$ for is   | A. 1.6 K<br>B. 2.71 K<br>C. 3.72 K<br>D. 2.82 K                                     |
| 9  | When the deformation produced in the material becomes permanent, this type of behaviour is called   | A. proportionality<br>B. elasticity<br>C. plasticity<br>D. none of them             |
| 10 | A metal wire is stretched by suspending weight to if $x$ is the longitudinal strain and $y$ is young's modulus of elasticity then the elastic potential energy per unit volume is | A. $\frac{1}{2} y x^2$<br>B. $x^2 / 2y$<br>C. $y^2 / 2x$<br>D. $x^2 / 2y$           |
| 11 | Which of the following is not dimensionless   | A. Poisson's ratio<br>B. Shear strain<br>C. Longitudinal strain<br>D. Volume stress |
| 12 | In superconductors, once the current is established it exists   | A. 1 day<br>B. 30 days<br>C. indefinitely<br>D. None of these                       |
| 13 | Young's modulus for tungsten is   | A. 90<br>B. 190<br>C. 390<br>D. 590   |
| 14 | The critical temperature $T_c$ for lead is  | A. 5.4 K<br>B. 6.3 K<br>C. 6.9 K<br>D. 7.2 K  |
| 15 | The whole structure obtained by the repetition of unit cell is known as   | A. Unit cell<br>B. Crystal lattice<br>C. Ore<br>D. All of these                     |

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|----|---|---|
| 16 | The electrical conductivities of insulators are ranging from                      | <p>A. <math>10^{-5}</math> to <math>10^{-10}</math> (<span style='color: rgb(34, 34, 34); font-family: "Times New Roman"; font-size: 24px; text-align: center; background-color: rgb(255, 255, 224);'>&lt;b&gt;<math>\Omega</math> m&lt;/b&gt;</span>)</p> <p>B. <math>10^{-10}</math> to <math>10^{-15}</math> (<span style='color: rgb(34, 34, 34); font-family: "Times New Roman"; font-size: 24px; text-align: center; background-color: rgb(255, 255, 224);'>&lt;b&gt;<math>\Omega</math> m&lt;/b&gt;</span>)</p> <p>C. <math>10^{-5}</math> to <math>10^{-15}</math> (<span style='color: rgb(34, 34, 34); font-family: "Times New Roman"; font-size: 24px; text-align: center; background-color: rgb(255, 255, 224);'>&lt;b&gt;<math>\Omega</math> m&lt;/b&gt;</span>)</p> <p>D. <math>10^{-10}</math> to <math>10^{-20}</math> (<span style='color: rgb(34, 34, 34); font-family: "Times New Roman"; font-size: 24px; text-align: center; background-color: rgb(255, 255, 224);'>&lt;b&gt;<math>\Omega</math> m&lt;/b&gt;</span>)</p> |
| 17 | The critical temperature of mercury is  | <p>A. 1.18 K</p> <p>B. 4.2 K</p> <p>C. 3.72 K</p> <p>D. 7.2 K</p>   |
| 18 | The results of mechanical tests are usually represents in terms of:               | <p>A. Stress</p> <p>B. Strain</p> <p>C. Both A &amp; B</p> <p>D. None of these</p>  |
| 19 | Identify practical use of superconductor  | <p>A. MRI</p> <p>B. Super computer</p> <p>C. Magnetic levitation train</p> <p>D. All above</p>  |
| 20 | In the phenomenon of hysteresis, the magnetism and magnetizing current behaves as | <p>A. I lags</p> <p>B. I leads B</p> <p>C. I &amp; B becomes equal</p> <p>D. None of these</p>  |