MDCAT Physics MCQ's Test

Sr	Questions	Answers Choice
1	A wire of 100 mm length and 1 mm^2surface area stretches 10 mm under a load of 60 N. A second wire of same material, with half the diameter of the first wire is stretched by the same load. What is the extension in the second wire?	A. 20 mm B. 30 mm C. 40 mm D. 50 mm
2	The stopping potential for a certain metal is 10 volt, the max. Energy of emitted electron is:	A. 10 J B. 100 J C. 1.6 × 10-18 J D. 1.6 × 10-19 J
3	A positively charged particle is moving perpendicular to a uniform magnetic field. The magnetic force makes the particle to move along:	A. An elliptical path B. A circular path C. A parabolic path D. None of these
4	At certain speed, the time taken by light in moving from M to m and back to M is equal to the time taken by	A. Face 4 to 1 B. Fact 6 to 1 C. Face 3 to 1 D. Face 2 to 1
5	Amorphous solids:	A. Have definite melting point B. Are called glassy solids C. Have no definite meting point D. Both B and C E. Both A and C
6	Two monochromatic radiations X and Y are incident normally on a diffraction grating.The second order intensity maximum for X coincides with the third order intensity maximum for Y what is the ratio wavelength of X/wavelength of Y?	A. 1/2 B. 2/3 C. 3/2 D. 2/1
7	Which of the following has no dimension	A. Stress B. Strain C. Elastic modulus D. Both strain and elastic modulus
8	We can observe only when the grating spacing is	A. of the order of the wavelength used B. greater than the wavelength used C. less than the wavelength used D. any one of them
9	The conversion of electrical signals into light signals taken place due to	A. Generator B. Transmitter C. Receiver D. None of these
10	An ordinary glass gradually softens into a paste-like state before it becomes a very viscous liquid. It happens almost at:	A. 800<span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;">°C B. 500<span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;">°C C. 300<span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;">°C D. 100<span style="font-size: 10.5pt;

		line-height: 107%; font-family: Arial, sans-serif; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;">°C E. None of these
11	A rigid uniform bar of length 2.4 m is pivoted horizontally at its mid-point, weights are hung from two points of the bar as shown in diagram. To maintain horizontal equilibrium, a couple is applied to the bar: What is the torque and the direction of couple?	A. 40 N m clockwise B. 40 N m anti-clockwise C. 80 N m clockwise D. 80 N m anti-clockwise
12	The process of doping causes resistivity of semiconductor to	A. Increase B. Decrease C. Same D. Become zero
13	Addition of 2.2 kg. 10.2 grams and 10.01 grams gives the rounded off answer as:	A. 19.398 B. 19.400 C. 19.4 D. 19.3
14	If 5000 lines/cm are ruled on a diffraction grating, the element is:	A. 5 x 10⁻⁵m B. 2 x 10⁻⁶m C. 5 x 10⁻⁶m D. 2 x 10⁻⁵m
15	The electrical resistance of mercury disappeared below temeprature	A. 2.1 K B. 3.4 K C. 4.1 K D. 4.2 K
16	A point source in a homogeneous medium gives rise to:	A. A plane wavefront B. A spherical wavefront C. A cylindrical wavefront D. An elliptical wavefront
17	Such substances which break soon after they cross elastic limit is called	A. Weak substance B. Ductile substance C. Brittle substance D. Organic substance
18	A convex ens acts as diverging lens when the object is placed	A. Between F and 2F B. At 2F C. Within the focal length D. Beyond 2F
19	The SI unit of stress is same as that of.	A. Momentum B. Pressure C. Force D. Length
20	Under the elastic region, the deformation produced in the material is	A. permanent B. temporary C. either of them D. none of them