MDCAT Physics MCQ's Test

Sr	Questions	Answers Choice
1	A piece of copper and another of germinium are cooled from room temperature to 80K. The resistance of	A. Each of them increases B. Each of them decreases C. Copper increases and germanium for D. Copper decreases and germanium increases
2	A grating with high resolving power can distinguish _____ difference in _____	A. Smaller, amplitude B. Greater, wavelength C. Smaller, wavelength D. Greater, intensity
3	Two sources are said to be coherent if they have:	A. Same amplitude B. Same wavelength C. Definite phase relation with each other D. None of them
4	The nature of thermal radiation is smaller to:	A. Ultraviolet rays B. Light rays C. Both of them D. None of these
5	A light and a heavy body have equal momenta. Which one has greater K.E?	A. The light body B. The heavy body C. The K.E are equa D. Data is incomplete
6	A light wave produced by oscillating charge consists of a periodic variation of	A. electric field B. magnetic field C. either of them D. both of them
7	The number of different crystals systems based on the geometrical arrangement of their atoms and the resultant geometrical structures are	A. 5 B. 7 C. 9 D. 14
8	Which of the given strains can also be written as tan θ	A. Compressional strain B. Volumetric strain C. Shear strain D. All of these
9	The organic substances which shows optical rotation when they are in solution	A. Tartaric acid B. Sugar C. Alcohol D. a and b
10	Cladding means a layer of _____ refractive index over the central core of _____ refractive index	A. Lower, lower B. Higher, lower C. Lower, higher D. None of these
11	The SI unit of stress is	A. Nm² B. Nm C. dynesm⁻¹ D. N
12	Phase change of 180° is equivalent to a path difference of	A. 2λ B. λ C. λ/2 D. <span style="color: rgb(34, 34,

		34); font-family: "Times New Roman"; font-size: 24px; text-align: center; background-color: rgb(255, 255, 224);">λ/4
13	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
14	The ability of body to return to its original shape (after the force is removed) is called:	A. Elasticity B. Ductility C. Stress D. Strain E. Any of these
15	Which of the following frequency ranges includes most of the electromagnetic waves emitted by the ultra - violet tubes used in a sun bed?	A. 5 x 10⁵ to 5 x 10⁸ Hz B. 5 x 10⁸ to 5 x 10¹¹ Hz C. 5 x 10¹¹ to 5 x 10¹⁴ Hz D. 5 x 10¹⁴ to 5 x 10¹⁷ Hz
16	. Time rate of change of momentum is equal to	A. Force B. Impulse C. Velocity D. Both A and C
17	The amount of a substance is measured in:	A. Kilogram B. Litre C. Mole D. Both A and C
18	Which characteristics of wave, established the Huygen's wave theory in 1801?	A. polarization B. interference C. propagation D. all of them
19	The modulus of elasticity of a liquid is:	A. Zero B. 1 C. Infinity D. A value not one of those mentioned above
20	A certain engine coverts 20% of available heat energy into work. Then its efficiency will be:	A. 20% B. 80% C. 50% D. None of these