MDCAT Physics MCQ's Test

Sr	Questions	Answers Choice
1	. A force "F1" acts on a body through distance "S1" in the direction of motion and does work "W1". Similarly another force "F2" act on same body through distance "S2" but in opposite to the direction of motion and does work "W2". Now if F1 = F2 and S1 = S2 then which statement is correct.	A. W1 = W2 B. W2< W2 C. W1 > W2 D. W1 = W2= 0
2	Which of the following pairs is not correct	A. Strain - dimensional B. Stress - N/m² C. Modulus of elasticity - N/m² D. Shear stress - N/m²
3	The minimum number of lenses used in compound microscope is	A. 1 B. 2 C. 3 D. 4
4	To find longest wavelength radiation in Ballmer series, the value of n used is:	A. 2 B. 3 C. 4 D. ∞
5	The critical temperature of mercury is	A. 1.18 K B. 4.2 K C. 3.72 K D. 7.2 K
6	Energy per unit volume of a stretched wire is	A. (1/2) x load x extension B. Load x stress C. Stress x strain D. (1/2) x stress x strain
7	A double convex lens acts as a diverging lens when the object is	A. Between f and 2f B. At the foucs C. Inside the focus D. All of these
8	The theory which explains the vast diversity in an electrical behaviour of all types the materials is	A. Free electron theory B. Band theory C. Theory based as chemical properties D. None of these
9	The light form Sun reaches earth in the form of	A. plane wavefront B. circular wavefront C. spherical wavefront D. elliptical wavefront
10	A convex lens is dipped in a liquid whose refractive index is equal to the material of the lens. Then its focal length will become	A. Infinite B. Zero C. Extremely small D. Extremely large
11	Whenever high magnification is desired	A. A telescope is used B. A compound microscope is used C. A microscope is used D. None of these
12	The SI unit of stress is	A. Nm² B. Nm C. dynesm⁻¹ D. N
13	The fractional change in volume per unit increase is pressure in called:	A. Pressure coefficient B. Volume coefficient C. Bulk modulus D. Compressibitlity
14	Inspite of different dispersion, all the wavelengths arrive at the other end of the fibre at the same time. With a step-index fibre overall time difference may be about	A. 40 ns B. 30 ns C. 32 ns D. 33 ns
15	In the hysteresis loop, when the current is reduced to zero, the material	A. does not retain magnetism B. retains not retain magnetism C. retains strong magnetism

		D. none of them
16	The distance between the plates of a charged parallel plate capacitor is 4mm and potential difference is 6 volts. If the distance between the plates is increased to 12mm, then :	A. The potential difference of the capacitor will become 18 volts B. The P.D become 20 volts C. The P.D will remain unchanged D. The charge on condenser will reduce to one third
17	What is the momentum of a photon of light of wavelength 500 nm in kgm/s:	A. 1.32 × 10−21 B. 1.32 × 10−23 C. 1.32 × 10−25 D. 1.32 × 10−27
18	Which of the following is/are base unit/s:	A. Square meter B. Cubic meter C. Candela D. all of them
19	A 4 m long string fixed at its ends resonate in 4 segments. The wavelength of the waveis:	A. 4m B. 0.5m C. 2m D. 0.25 m
20	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