MDCAT Physics MCQ's Test

Sr	Questions	Answers Choice
1	Wavelength of light of frequency 100 Hz is	A. 2 x 10⁶m B. 3 x 10⁶m C. 4 x 10⁶m D. 5 x 10⁶m
2	A count rate 240 per minute reduces to 30 counts per min in 1 hour. The half-life of source is:	A. 20min B. 60min C. 80min D. 90min
3	The splitting of white light into several colors on passing through a glass prism is due to	A. Refraction B. Reflection C. Interference D. Diffraction
4	. 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
5	Choose the correct statement	A. Rays are normal to wave front B. Rays may be normal to wave front C. Rays are not normal to wave front D. There is no relationship between rays and wave fronts
6	When a mirror of a Michelsion's interferometor is moved a distance of 0.5 mm, 2000 fringes are observed, the wavelength of the light used is	A. 5000 mm B. 5000°A C. 500 cm D. 2000°A
7	Vertical component of velocity of the projectile at any instant ‘t’ from the ground is given by:	A. □□□□□□ B. □□□□□□ − □t C. □□□□□□ − □t D. □□□□□□ + □t
8	Shear modulus for steel is	A. 20 B. 84 C. 95 D. 202
9	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
10	Star twinkle due to	A. The fact that they do not emit light continously B. The refractive index of earth's atmosphere fluntuates C. The star's atmosphere absorbs its light intermittently D. None of these
11	When 'θ' is small then	A. tan θ ≈ sin θ B. cos θ ≈ sin θ C. sin θ ≈ tan θ D. None of these
12	Newton's rings are formed due to	A. Refraction of light B. Diffraction of light C. Interference of light D. None of these
13	The rate of change of momentum of a molecule is equal to:	A. Pressure B. Work C. Density D. Force
		A. Always exerts a force on a charged

		particle B. Never exerts a force on a charged particle C. Exerts a force on a charged particle if it is moving across the magnetic lines of force D. Exerts a force on a charged particle if it is moving along the magnetic lines of force.
14	A magnetic field	
15	How does the Young's modulus vary with the increase of temperature?	A. Decrease B. Increase C. Remains constant D. First increases and then decreases
16	Refractive index of material depends upon	A. Nature of material B. Wave length C. Temperature D. All of these
17	Which is having minimum wavelength?	A. X-rays B. Ultra-violet rays C. Y-rays D. Cosmic rays
18	Absolute uncertainty in a measuring instrument is equal to:	A. Percentage uncertainty B. Least count C. Accuracy D. Fractional uncertainly
19	The waves propagate in space by the motion of the	A. wavelengths B. frequencies C. wavefronts D. none of them
20	Davisson and Germer, in their experiment used:	A. Nickle crystal B. Lead crystal C. Graphite crystal D. Glass