MDCAT Physics MCQ's Test

Sr	Questions	Answers Choice
1	A prism splits a beam of white light into seven component colors. This is so because	A. Phase of different colors is different B. Amplitude of different colors is different C. Energy of different colors is different D. Velocity of different colors is different
2	Density is defined as:	A. Mass per volume B. Volume per mass C. Mass x volume D. Mass per length
3	For multiplication and division purposes, percentage uncertainties are:	A. Added B. Subracted C. Multiplied D. Divided
4	A grating with high resolving power can distinguish _____ difference in _____	A. Smaller, amplitude B. Greater, wavelength C. Smaller, wavelength D. Greater, intensity
5	Resistance of 60 watt bulbs in 120V line is:	A. 20 ohms B. 240 ohms C. 0.15 ohms D. 180 ohms
6	In proportional limit (σ) of material, the stress increases with strain	A. Linearly B. Constant C. Abruptly increases D. None of these
7	In YDS experiment, data given is $\lambda=500$ nm, $d=1$ mm, $L=100$cm, Δy come out to be:	A. 0.5 cm B. 0.5 mm C. 0.5 nm D. 0.5 m
8	The fractional change in volume per unit increase in pressure is called	A. Pressure coefficient B. Volume coefficient C. Bulk modulus D. Compressibility
9	For glass-air boundary the critical angle θ_c is	A. 30° B. 41.8^o C. 42.0^o D. 44.0^o
10	Monochromatic light directly means waves of	A. Same frequency B. Same color C. Same wavelength D. All of them
11	The hydrogen atoms are excited to the stationary state designated by the principal quantum number n=4, the number of maximum spectral lines are observe:	A. 2 B. 3 C. 4 D. 6
12	Because of large mass when $\square$ −paricle enters the atom or molecule it:	A. Moves in zigzag path B. Moves along straight line C. Moves along circular path D. None of these
13	The absence of light in the optical fibres represents the number	A. 0 B. 1 C. 2 D. -1
14	All of the following have been expressed in proper units except:	A. Energy = kg m sec^{-2} B. Pressure = N -m^2 C. Area = m^2 D. density = kg - m^3

15	The components of a fibre optic communication system is/are	A. At transmitter B. An optical fibre C. Receiver D. All of these
16	An electron and a proton are accelerated through the same potential. If their masses are me and mp respectively, then the ratio of their de-Broglie wavelength is:	A. 1 B. mp/me C. me/mp
17	The eye piece of a compound microscope acts as a	A. Diverging lens B. Converging lens C. Diverging mirror D. Converging mirror
18	The light source used in multimode step index fibre is	A. A monochromatic source B. Red light C. White light D. None of these
19	A hole in a semi-conductor material is treated as	A. positive charge B. negative charge C. neutral D. none of them
20	Beta particles have less ionizing power than that of alpha particles because:	A. Their smaller energy B. Their smaller mass C. Their smaller density D. Their smaller charge