MDCAT Physics MCQ's Test

Sr	Questions	Answers Choice
1	The path difference and phase difference are related to each other as	A. Phase difference = (2π) x path difference B. Phase difference = (2π/λ) x path difference C. Phase difference = (λ/2) x path difference D. Phase difference = (2λ/π) x path difference
2	When two light waves travelling in the same direction are out of phase at any point, their resultant amplitude	A. increases B. decreases C. remains unchanged D. increases rapidly
3	Ultraviolet radiation of 6.2 eV falls on an aluminium surface having work function ⌀ = □. □ □□. The kinetic energy of the fastest electron emitted is:	A. 4 eV B. 2 eV C. 2.2 eV D. 1.2 eV
4	A wire breaks of stretched by more than 3mm. It is cut into equal parts. Then each part can be stretched with out-breaking by	A. 0.75 mm B. 1.5 mm C. 3.0 mm D. 6.0 mm
5	When a germanium atom is doped with phosphorous atoms it becomes	A. N-type semiconductor B. p-type semiconductor C. An insulator D. None of them
6	A double convex lens act as a diverging lens when the object is	A. Inside the focus B. Between f and 2f C. At the focus D. At a large distance
7	If a transverse wave has a speed of 10 m/ sec and frequency of 10 cycle/ sec itswavelength is:	A. 1 m B. 10⁻² cm C. 10 m D. 10 cm
8	The potential difference between head and tail of an "electric eel" can be upto.	A. 6V B. 60V C. 6000V D. 600V
9	Which optical fibre is used for shorter distances only?	A. single mode step index fibre B. multi-mode step index fibre C. multi-mode graded index fibre

		D. all of them
10	What is the Young modulus of a meta?	A. Extension/force B. Force/extension C. Strain/stress D. Stress/strain
11	The unit of work function is	A. eV B. Volt C. Farad D. Herdz
12	Resolving power of a telescope depends on:	A. The magnification of eyepiece B. The focal length of objective lens C. Diameter of objective lens D. Refractive index of objective lens
13	Let a ray of light enters from air into two media of different refractive indices. The speed of light will be _____ to refractive index	A. Directly proportional B. Inversely proportional C. Sometimes inversely D. Equal
14	The cause of mirage observed in desert is	A. Refraction B. Reflection C. Scattering D. Total internal reflection
15	The expression of energy stored in an inductor of length L and current I can be expressed by a relation	A. 1/2 LI² B. 1/2 I²L C. 1/2 I²L² D. 1/2 IL
16	The direction of a ray of light is.....to the wave front.	A. Parallel B. Equal C. Opposite D. Perpendicular
17	The materials in which there are plenty of free electrons for electrical conduction are known as	A. conductors B. insulators C. semi-conductors D. all of them
18	The atoms or molecules in a crystalline solid are held together by	A. Attractive force B. Gravitational force C. Cohesive force D. Electromagnetic force
19	Glass and high carbon steel are the examples of	A. brittle substances B. ductile substances C. plastic substances D. elastic substances
20	For which color of light the refractive index of glass is larger	A. Red B. Green C. Blue D. Violet