MDCAT Physics Chapter 15 Modern Physics MCQ's Test

Sr	Questions	Answers Choice
1	The number of electrons emitted depend upon	A. Colour of target surface B. Shape of surface C. Frequency of incident light D. Intensity of incident light
2	A.H Compton studied the scattering of X-rays by loosely bound electrons from a graph target in:	A. 1905 B. 1911 C. 19251 D. 1923
3	Which of the particles, electron, proton and neutron moving with same speed has longest wave length?	A. Electron B. Proton C. Neutron D. All have same
4	Davisson and Germer received the Nobel prize for their work on:	A. Wave nature of particle B. Corpuscular nature of wave C. Dual nature of particle D. All of them
5	In Compton effect, it was considered that X-rays consist of:	A. Electrons B. Positrons C. Photons D. All of these
6	Photo cells are used for :	A. Security and counting system B. Automatic door system C. Automatic street lighting D. All of these
7	In a photocell, certain metal emits electrons for :	A. Visible light B. Infrared light C. Ultraviolet light D. All of these
8	The maximum energy of the photoelectrons depends upon:	A. Frequency of incident light B. Intensity of incident light C. Nature of metal D. Both (a) & (c)
9	The maximum energy of the photoelectrons can be determined by making the:	A. Anode positive B. Anode negative C. Cathode positive D. Both (b) & (c)
10	Interference and diffraction confirm:	A. Particle nature B. Wave nature C. Dual nature D. None of these
11	The maximum kinetic energy of emitted photoelectrons depends upon:	A. The intensity of incident light B. Frequency of the incident light C. Temperature of the surface D. All of above
12	The maximum kinetic energy of emitted photoelectrons depends upon:	A. The intensity of incident light B. Frequency of incident light C. Metal surface D. Both frequency of incident light and metal surface
13	Photoelectric effect and Compton effect prove the:	A. Wave nature of light B. Particle nature of light C. Dual nature of light D. Dual nature of light
14	The dimensions of Planck's constant "h" are same as that of:	A. Momentum B. Angular momentum C. Work D. Torque
15	A photo cell is based on:	A. Compton effect B. Pair production C. Photo cell D. All of th

		D. All of these
16	The reverse process of photo-electric effect is called:	A. Pair production B. Compton effect C. Annihilation of matter D. X-rays
17	Moving photons posses:	A. Energy B. Momentum C. Wavelength D. All of these
18	The energy of photon of energy 1 eV is:	A. 1240 nm B. 1040 nm C. 1000 nm D. 620 nm
19	The minimum energy required by an electron to eject from metal surface is known as:	A. Photo energy B. Critical energy C. Threshold energy D. Work function
20	Interference and diffraction of light confirms its:	A. Particle nature B. Dual nature C. Wave nature D. Electromagnetic nature