MDCAT Physics Chapter 15 Modern Physics MCQ's Test

Sr	Questions	Answers Choice
1	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
2	There is a certain frequency below which no electrons are emitted from the metal surface, this frequency is known as:	A. Critical frequency B. Threshold frequency C. Maximum frequency D. Minimum frequency
3	In photoelectric effect, electrons are emitted with:	A. Same energy B. Different energies C. Both (a) & (b) D. Intermittent energies
4	Davisson and Germer, in their experiment used:	A. Nickle crystal B. Lead crystal C. Graphite crystal D. Glass
5	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)
6	The unit Compton wavelength is same as:	A. Compton wavelength B. Compton frequency C. Compton shift D. Both (a) & (b)
7	Joule-second is the unit of:	A. Energy B. Heat C. Planck’s constant D. None of these
8	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
9	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
10	The energy of photon of wavelength 1240 nm is:	A. 0.5 eV B. 1.0 eV C. 1.5 eV D. 2.0 eV
11	In a photocell, certain metal emits electrons for :	A. Visible light B. Infrared light C. Ultraviolet light D. All of these
12	G.P Thomson revealed:	A. Particle nature of electron B. Dual nature of electron C. Wave nature of electron D. Electromagnetic nature of electron
13	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
14	The reverse process of photo-electric effect is called:	A. Pair production B. Compton effect C. Annihilation of matter D. X-rays
15	The dimensions of Planck’s constant “h” are same as that of:	A. Momentum B. Angular momentum C. Work D. Torque

16	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
17	The energy of photon of energy 1 eV is:	A. 1240 nm B. 1040 nm C. 1000 nm D. 620 nm
18	In a photocell, cesium coated oxidized silver emits electrons for :	A. Visible light B. Infrared light C. Ultraviolet light D. All of these
19	J.J Thomson finds:	A. Particle nature of the electron B. Dual nature of electron C. Wave nature of electron D. Electromagnetic nature of electron
20	Interference and diffraction confirm:	A. Particle nature B. Wave nature C. Dual nature D. None of these