MDCAT Physics Chapter 11 Dawn of modern Physics Online Test

Sr	Questions	Answers Choice
1	A photo cell is based on:	A. Compton effect B. Pair production C. Photo cell D. All of these
2	Davisson and Germer, in their experiment used:	A. Nickle crystal B. Lead crystal C. Graphite crystal D. Glass
3	Compton Effect makes the use of the law of conservation of:	A. Energy B. Momentum C. Charge D. Both (a) & (b)
4	The unit of work function is	A. eV B. Volt C. Farad D. Herdz
5	Potassium cathode in photocell emits electrons for a light:	A. Visible B. Infrared C. Ultraviolet D. X-rays
6	The dimensions of Planck's constant "h" are same as that of:	A. Momentum B. Angular momentum C. Work D. Torque
7	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
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 unit Compton wavelength is same as:	A. Compton wavelength B. Compton frequency C. Compton shift D. Both (a) & (b)
10	Diffraction pattern has also been observed for:	A. Proton B. Neutron C. Hydrogen atom D. All of them
11	The energy of photon of wavelength 620 nm is:	A. 0.5 eV B. 1.0 eV C. 1.5 eV D. 2.0 eV
12	In order to perform experiment, Davisson and Germer used accelerating voltage of:	A. 54V B. 120V C. 220V D. 400V
13	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
14	A human eye can detect the electromagnetic radiations of the type:	A. Infrared radiations B. For- infrared radiations C. X-rays radiations D. Red radiations
15	In photoelectric effect, if we increase the frequency of the incident light then of the electrons increased	A. Number B. K.E C. P.E D. Frequency

16	Rest mass energy of electron is:	A. 1.02 MeV B. 0.51 MeV C. 931 MeV D. 200 MeV
17	In order to increase the K.E of ejected photo electrons, there should be an increase in:	A. Intensity of radiation B. Nonel C. Frequency of radiation D. Both (b) & (c)
18	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
19	The reverse process of photo-electric effect is called:	A. Pair production B. Compton effect C. Annihilation of matter D. X-rays
20	Interference and diffraction of light confirms its:	A. Particle nature B. Dual nature C. Wave nature D. Electromagnetic nature
21	In photoelectric effect, electrons are emitted:	A. Slowly B. Intermittently C. Both (a) & (b) D. Instantly
22	Photo cells are used for :	A. Security and counting system B. Automatic door system C. Automatic street lighting D. All of these
23	In Compton effect, it was considered that X-rays consist of:	A. Electrons B. Positrons C. Photons D. All of these
24	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
25	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)
26	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
27	A human eye can detect the electromagnetic radiations of the type:	A. Infrared radiations B. For- infrared radiations C. X-rays radiations D. Red radiations
28	In photoelectric effect, electrons are emitted with:	A. Same energy B. Different energies C. Both (a) & (b) D. Intermittent energies
29	Interference and diffraction confirm:	A. Particle nature B. Wave nature C. Dual nature D. None of these
30	Moving photons posses:	A. Energy B. Momentum C. Wavelength D. All of these
31	In a photocell, certain metal emits electrons for :	A. Visible light B. Infrared light C. Ultraviolet light D. All of these
32	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
33	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

		C. Dual nature of particle D. All of them
34	In a photocell, sodium and potassium emit electrons for:	A. Visible light B. Infrared light C. Ultraviolet light D. All of these
35	Joule-second is the unit of:	A. Energy B. Heat C. Planck's constant D. None of these
36	Photo cells is a device which convert light into:	A. Wave nature B. Particle nature C. Particle wave nature D. Dual nature
37	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
38	The photoelectric effect was explained by:	A. Einstein B. Davison C. Hertz D. Planck
39	G.P Thomson revealed:	A. Particle nature of electron B. Dual nature of electron C. Wave nature of electron D. Electromagnetic nature of electron
40	De-Broglie received the Nobel prize in	A. 1929 B. 1937 C. 1928 D. 1924
41	The energy of photon of energy 1 eV is:	A. 1240 nm B. 1040 nm C. 1000 nm D. 620 nm
42	De-Broglie received the Nobel prize on his work on:	A. Wave nature of particle B. Corpuscular nature of wave C. Dual nature of particle D. All of them
43	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
44	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
45	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
46	In a photocell, cesium coated oxidized silver emits electrons for :	A. Visible light B. Infrared light C. Ultraviolet light D. All of these
47	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