

## MDCAT Physics Chapter 15 Modern Physics MCQ's Test

Sr	Questions	Answers Choice
1	The energy of photon of energy 1 eV is:	A. 1240 nm B. 1040 nm C. 1000 nm D. 620 nm
2	Potassium cathode in photocell emits electrons for a light:	A. Visible B. Infrared C. Ultraviolet D. X-rays
3	In a photocell, cesium coated oxidized silver emits electrons for :	A. Visible light B. Infrared light C. Ultraviolet light D. All of these
4	Diffraction pattern has also been observed for:	A. Proton B. Neutron C. Hydrogen atom D. All of them
5	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
6	In order to perform experiment, Davisson and Germer used accelerating voltage of:	A. 54V B. 120V C. 220V D. 400V
7	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
8	The reverse process of photo-electric effect is called:	A. Pair production B. Compton effect C. Annihilation of matter D. X-rays
9	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
10	In order to increase the K.E of ejected photo electrons, there should be an increase in:	A. Intensity of radiation B. None C. Frequency of radiation D. Both (b) & (c)
11	In Compton effect, it was considered that X-rays consist of:	A. Electrons B. Positrons C. Photons D. All of these
12	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
13	Photo cells is a device which convert light into:	A. Wave nature B. Particle nature C. Particle wave nature D. Dual nature
14	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
15	Rest mass energy of electron is:	A. 1.02 MeV B. 0.51 MeV C. 931 MeV D. 200 MeV

D. 200 MeV

16 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

17 De-Broglie received the Nobel prize in

- A. 1929
- B. 1937
- C. 1928
- D. 1924

18 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

19 In a photocell, certain metal emits electrons for :

- A. Visible light
- B. Infrared light
- C. Ultraviolet light
- D. All of these

20 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)