Chapter 19: Dawn of Modern Physics

1: The Davison and Germer experiment indicates

a) Interference b) Polarization c) Electron diffraction d) Refraction

2: The reverse process of photo electric effect is called a

a) Radioactivity b) Compton Effect c) Zeeman Effect d) Pair production

3: For pair production, minimum energy of photon must be

a) 0.51 Mev b) 1.02 Mev c) 931 Mev d) 2.10 Mev

4: Which one is in order of decreasing frequency?

a) X-rays, radio waves, infrared rays b) ultraviolet, visible, radio waves

c) Infrared, visible, x-rays d) yellow, green, red

5: Radiation's emitted by a human body at normal temperature (37^0 C) lies in

a) X-rays region b) visible region c) infrared region d) ultraviolet region

6: In photoelectric effect, which factor increases by increasing the intensity of incident photon?

a) Kinetic energy of electron b) stopping potential

c) work function d) Number of emitting electrons

7: In Compton scattering, the Compton shift $\Delta\lambda$ will be equal to Compton wavelength, if the scattering angle is

a) Zero b) 45 c) 60 d) 90

8: The coordinate system in which law of inertia is valid is called

a) Special theory of relativity b) Inertial frame of reference

c) Non- Inertial frame of reference d) Standard frame of reference

9: Maximum kinetic energy of photoelectrons depends upon------ of incident light

a) Frequency b) intensity c) brightness d) power

10: The radius of atom is of the order of

a) 10^{10} m b) 10^{-10} m c) 10^{-14}m d) 10^{14}m

11: In 1905, the special theory of relativity was proposed by

a) Maxwell b) de-broglie c) Bohr d) Einstein

12: The momentum of the moving photon is

a) Zero b) $p=h/\lambda$ c) $p=h\lambda$ d) $p=\lambda/h$

13: Number of electrons emitted in photoelectric effect depends upon

a) Intensity of incident light b) Frequency of incident light

c) Energy of incident light d) Wavelength of incident light

14: Joule second is unit of

a) Energy b) Wien's constant c) Plank's constant d) Boyle's law