

ECAT Pre General Science Physics Chapter 19 Dawn of Modern Physics

Sr	Questions	Answers Choice
1	A high temperature, the proportion of shorter wavelengths radiation, emitted by the body	A. decreases B. first increases then decreases C. increases D. any one of them
2	The stopping voltage for a certain metal is 100 volts, then the work function for the cathode plate is	A. 100 J B. 1.6×10^{-17} J C. 100 eV D. 1.6×10^{-17} eV
3	When low energy photon interact with a metal, which of the following effect is likely to be taken place	A. pair production B. photoelectric C. Compton effect D. None of these
4	When a positron comes close to an electron they annihilate into	A. one photon B. two photons which travel in the same direction C. two photons which travel in the opposite direction D. two photons which travel in any direction
5	The energy of a photon in a beam of infrared radiation of wavelength 1240 nm is	A. 100 eV B. 10^{-6} eV C. 10^{-3} eV D. 1.0 eV
6	An inertial frame of reference is a frame of reference which is	A. at rest B. moving with uniform velocity C. either at rest or moving with uniform velocity D. none of these
7	The value of the plank's constant 'h' is given by	A. 1.6×10^{-19} J B. 1.67×10^{-27} Kg C. 6.63×10^{-34} Js D. 6.63×10^{-34} Js
8	Compton derived an expression to find Compton shift by applying to the process, the law of conservation of:	A. Energy only B. Momentum only C. Mass only D. Charge only E. Both (A) and (B)
9	Compton was awarded Nobel prize in physics in	A. 1921 B. 1923 C. 1925 D. 1927
10	According to Einstein, with the great increase in the speed of the body, the relativistic mass of the body	A. Remains constant B. Decreases C. Increases to infinity D. Reduced to zero
11	Photoelectric effect takes place with a photon of:	A. Very high energy B. Very low energy C. Low energy D. High energy E. None of these
12	Which one of the following physical quantities changes with relativistic speed	A. Length B. Mass C. Time D. All of the above
13	In the Compton's effect, it is found that the wavelength of incident x-rays is	A. greater than the wavelength of scattered x-rays B. equal to the wavelength of scattered x-rays C. less than the wavelength of scattered x-rays D. any one of these

14	In process of annihilation of matter, the two photons produced move in opposite direction to converse	A. momentum B. charge C. energy D. mass
15	Wave nature of particle was proposed by	A. Einstein B. Plank C. De-Brogile D. Max well
16	The inside cavity of the black body is	A. painted white B. painted silver C. blackened with soot D. painted red
17	When platinum wire is heated, then at the temperature of 500 °C, it becomes:	A. Yellow B. Orange red C. Dull red D. White E. Cherry red
18	The way through which electromagnetic radiations or photons interact with matter depends upon their:	A. Wavelength B. Frequency C. Energy D. Temperature E. All of these
19	An inertial frame is that frame in which	A. $a > 0$ B. $a = 0$ C. $a < 0$ D. none of these
20	Electromagnetic -radiation means:	A. Photons B. protons C. Electrons D. Mesons E. None of these