

ECAT Physics Chapter 19 Dawn of Modern Physics

Sr	Questions	Answers Choice
1	Position was discovered by Carl Anderson in	A. 1920 B. 1925 C. 1928 D. 1932
2	Compton was awarded Nobel prize in physics in	A. 1921 B. 1923 C. 1925 D. 1927
3	According to the Max plank, energy is redialed or absorbed in	A. discrete packets B. continuous waves C. either of them D. none of these
4	In order to produce pair production, a photon must have a energy	A. 0.511 Me v B. 0.256 Me v C. 1.02 Me v D. 0.956 Me v
5	An electron is accelerated through a potential difference of 50v. its de-Brogile wavelength is	A. 1.66×10^{-29} m B. 1.74×10^{-10} cm C. 17.4×10^{-6} m D. 1.74×10^{-10} m
6	According to the special theory of relativity, a moving clock	A. runs faster B. runs slower C. neither runs faster nor slower D. all of these
7	If you are moving at relativistic speed between two points that are a fixed distance apart, then the distance between the two points appers	A. larger B. shorter C. equal D. none of these
8	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
9	When the atomic particle are moving with velocities approaching that of light:	A. Newton's laws become valid B. Relativistic effects become prominent C. Botha(A) and (B) are valid D. Neither (A)nor (B) E. There mass becomes zero.
10	The photon of radio-waves has energy of about	A. 1 Me V B. 1 Ke v C. 10^{-10} e v D. 10^{10} e v
11	As the light shines on the metal surface, the electrons are ejected	A. slowly B. instantaneously C. either of these D. none of these
12	The speed of a pendulum is measured to be 3.0 s in the inertial reference frame of the pendulum. What is its period measured by an observer moving at a speed of 0.95 c with respect to the pendulum	A. 2.9 s B. 3.0 s C. 6.6 s D. 9.6 s
13	The idea of quantization of energy was proposed by:	A. Einstein B. Max.Planck C. Maxwell D. Bohr E. Rutherford
14	A photon is considered to have	A. Momentum B. Energy C. Wavelength D. All of these

D. All of the above

15	The value of threshold frequency for different metals is	A. different B. same C. may be different or may be same D. none of these
16	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
17	The concept of direction and position are purely	A. absolute B. relative C. absolute or relative D. none of these
18	The existence of position was predicted by Dirace in	A. 1920 B. 1925 C. 1930 D. 1928
19	Albert Einstein got the Nobel prize in physics for his explanation of photoelectric effect in	A. 1916 B. 1919 C. 1921 D. 1923
20	The location and speed anywhere on earth can now be determined using relativistic effects by NAVISTAR to an accuracy of	A. 2 cm/s B. 20 cm/s C. 200 cm/s D. 2000 cm/s