

ECAT 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 existence of positron was predicted by Dirac in	A. 1920 B. 1925 C. 1930 D. 1928
3	Photoelectrons are emitted when ultraviolet light falls on:	A. Cesium B. Silver C. Potassium D. Any of these E. None of these
4	The general theory of relativity treats problems involving	A. inertial frame of references B. accelerating frame of references C. both of these D. none of these
5	The energy of the 4th orbit in hydrogen atom is	A. 2.5 eV B. - 3.5 eV C. -0.85 eV D. -13.6 eV
6	With the help of 50 K v electron microscope, a resolution of	A. 0.5 to 1 m is possible B. 1 m to 10 m is possible C. 0.5 to 1 nm is possible D. 1 to 10 nm is possible
7	There is certain frequency below which no electrons are emitted from the metal surface, this frequency is known as	A. maximum frequency B. minimum frequency C. threshold frequency D. all of these
8	The idea of quantization of energy was proposed by:	A. Einstein B. Max. Planck C. Maxwell D. Bohr E. Rutherford
9	The mass 'm' of a body moving at 0.8 c (whose rest mass is m_0) becomes	A. 2 m_0 B. 1.67 m_0 C. 0.67 m_0 D. 2.67 m_0
10	Electromagnetic -radiation means:	A. Photons B. protons C. Electrons D. Mesons E. None of these
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	When a platinum wire is heated, it appears yellow at	A. 1600°C B. 900°C C. 1100°C D. 1300°C
13	Which of the following is not an example of inertial frame	A. a body placed on the surface of earth B. a body placed in a car moving with uniform velocity C. a body placed in a car moving with same acceleration D. none of these
14		A. Photon B. Meson C. Baryon

14	Compton shift refers to:	C. Proton D. Positron E. Both (B) and (D)
15	According to the special theory of relativity, time is	A. absolute quantity B. not absolute quantity C. constant quantity D. none of these
16	There is no way to detect:	A. Absolute uniform motion B. Accelerated motion C. State rest D. State of motion E. None of these
17	When a platinum wire is heated, it appears dull red at about	A. 500°C B. 900°C C. 1100°C D. 1300°C
18	The Stephen-Boltzmann law for the black body radiation is given by	A. $E = T^2$ B. $E = -T^2$ C. $E = T^4$ D. $E = -T^4$
19	The mass of an object will be doubled at speed	A. $1.6 \times 10^8 \text{ ms}^{-1}$ B. $2.6 \times 10^8 \text{ ms}^{-1}$ C. $2.6 \times 10^7 \text{ ms}^{-1}$ D. $2.6 \times 10^9 \text{ ms}^{-1}$
20	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