

ECAT Physics Chapter 19 Dawn of Modern Physics

Sr	Questions	Answers Choice
1	The nature of radiations emitted by a hot body depends upon its:	A. Metarial B. Temperature C. colour D. Volume E. Length
2	When platinum wire is heated, it appears cherry red at	A. 1600 °C B. 900 °C C. 1100 °C D. 1300 °C
3	Which one of the following physical quantities changes with relativistic speed	A. Length B. Mass C. Time D. All of the above
4	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
5	Newton's law of motion do not hold in	A. an accelerated frame of reference B. an unaccelerated frame of reference C. both of these D. none of these
6	The special theory of relatively treats the problems involving:	A. Inertial frames of reference B. Non-inertial frames C. Non-accelerated frame D. Both (A) and (C) E. Both (B) and (C)
7	A non-inertial frame of reference is one, in which	A. law of inertial is valid B. all laws of physics are the same in all frames C. $a \neq 0$ or $a \neq 0$ D. $a = 0$
8	Victor de-Brogile received the Nobel prize in physics in	A. 1925 B. 1929 C. 1932 D. 1935
9	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
10	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)
11	The idea of quantization of energy was proposed by:	A. Einstein B. Max.Planck C. Maxwell D. Bohr E. Rutherford
12	Converse of pair production is known as	A. Compton effect B. annihilation of matter C. photoelectric effect D. none of these
		A. 100 ev

13	The energy of a photon in a beam of infrared radiation of wavelength 1240 nm is	B. 10^6 e v C. 10^3 e v D. 1.0 e v
14	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
15	There is no way to detect:	A. Absolute uniform motion B. Accelerated motion C. State rest D. State of motion E. None of these
16	The value of the Stephen's constant for black body radiations is given by	A. 5.6×10^8 Wm ⁻² K ⁻⁴ B. 5.67×10^8 Wm ⁻² K ⁻⁴ C. 2.9×10^3 mK D. 2.9×10^3 mK
17	Position and momentum of a particle cannot both be measured simultaneously with perfect accuracy. This is the statement of	A. photoelectric effect B. pair production C. Compton effect D. uncertainty principle
18	Pair production is the phenomenon in which	A. matter is converted into energy B. energy is converted into matter C. light is converted into electrical energy D. electrical energy is converted into light
19	Momentum is a parameter associated with	A. wave motion B. particle motion C. neither wave nor particle motion D. none of these
20	Wave nature of particle was proposed by	A. Einstein B. Plank C. De-Brogile D. Max well