

ECAT Pre General Science Physics Chapter 19 Dawn of Modern Physics

Sr	Questions	Answers Choice
1	The whole shape of the black body spectrum for all wavelengths was explained by the formula proposed by	A. Max plank B. Newton C. Einstein D. J.J. Thomson
2	The concept of direction and position are purely	A. absolute B. relative C. absolute or relative D. none of these
3	Which of the following phenomenon proves the particle nature of light	A. interference B. diffraction C. photoelectric effect D. none of these
4	When platinum wire is heated, it appears cherry red at	A. 1600 °C B. 900 °C C. 1100 °C D. 1300 °C
5	Converse of pair production is known as	A. Compton effect B. annihilation of matter C. photoelectric effect D. none of these
6	the symbol to be used in relativity problems denotes:	A. Dilated time B. Proper time C. Life time D. Half time E. None of these
7	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
8	the dilation of time applies to the timing processes which are:	A. Physical B. Chemical C. Biological D. All of these E. None of these
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	The emission of electrons from a metal surface when exposed to light of suitable frequency is called the	A. pair production B. Compton effect C. photoelectric effect D. relativity
11	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
12	According to the special theory of relativity	A. mass and energy are same entities B. mass and energy are same entities but interconvertible C. mass and energy are different entities but interconvertible D. mass and energy are different entities but non-interconvertible

13	Max Planck received the Nobel Prize for his discovery of energy quanta in:	B. 1918 AD C. 1818 AD D. 1918 AD E. None of these
14	Wien's constant is measured in:	A. Metre per kelvin B. Metre kelvin C. Kelvin per meter D. Joules E. Dynes
15	Which one of the following physical quantities changes with relativistic speed	A. Length B. Mass C. Time D. All of the above
16	An inertial frame is that frame in which	A. $a \neq 0$ B. $a = 0$ C. $a < 0$ D. none of these
17	G.P. Thomson observed experimentally that electrons and neutrons possess	A. particle-like properties B. wave-like properties C. neither particle nor wave like properties D. none of these
18	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
19	Current, voltage, resistance measuring circuit is connected with the galvanometer with the help of switch, known as	A. ON switch B. off switch C. function switch D. none of these
20	There is no way to detect:	A. Absolute uniform motion B. Accelerated motion C. State rest D. State of motion E. None of these