

ECAT Pre General Science Physics Chapter 19 Dawn of Modern Physics

Sr	Questions	Answers Choice
1	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
2	When platinum wire is heated, it appears cherry red at	A. 1600 °C B. 900 °C C. 1100 °C D. 1300 °C
3	From the theory of relativity, momentum p of the photon is related to energy as	A. $p = hfc$ B. $p = hf/c$ C. $p = f(hc, f)$ D. $p = cf/h$
4	An electron is accelerated through a potential difference of 50v. its de-Broglie wavelength is	A. $1.66 \times 10^{-29} \text{m}$ B. $1.74 \times 10^{-10} \text{cm}$ C. $17.4 \times 10^{-6} \text{m}$ D. $1.74 \times 10^{-10} \text{m}$
5	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
6	When a platinum wire is heated, it appears dull red at about	A. 500°C B. 900°C C. 1100°C D. 1300°C
7	Converse of pair production is known as	A. Compton effect B. annihilation of matter C. photoelectric effect D. none of these
8	Max plank founded a mathematical model resulting in an equation that describes the shape of observed black body radiation curves exactly, in	A. 1890 B. 1895 C. 1900 D. 1905
9	Due to relative motion of observer and the frame of reference of events, time always:	A. Dilates itself B. Contracts itself C. Stretches itself D. Both (A) and (C) E. None of these
10	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
11	If you are moving at relativistic speed between two points that are a fixed distance apart, then the distance between the two points appears	A. larger B. shorter C. equal D. none of these
12	The Nobel Prize on the explanation of photoelectric effect was awarded to:	A. Max. Planck B. Maxwell C. Bohr D. Rutherford E. None of these
13	According to the special theory of relativity, time is	A. absolute quantity B. not absolute quantity C. constant quantity D. none of these

14	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
15	When a platinum wire is heated, it appears yellow at	A. 1600°C B. 900°C C. 1100°C D. 1300°C
16	Positron was discovered by Carl Anderson in	A. 1920 B. 1925 C. 1928 D. 1932
17	The nature of radiations emitted by a hot body depends upon its:	A. Material B. Temperature C. colour D. Volume E. Length
18	The special theory of relativity is based on:	A. Four postulates B. Three postulates C. Two postulates D. One postulate E. None of these
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	Absolute motion cannot be detected	A. in its own frame of references B. in a different frame of references C. both in its frame and different frame of references D. none of these