

## ECAT Pre General Science Physics Chapter 19 Dawn of Modern Physics

Sr	Questions	Answers Choice
1	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. $2.6 \times 10^{9} \text{ ms}^{-1}$
2	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
3	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
4	The length contraction happens only	A. Opposite to the direction of motion B. along the direction of motion C. perpendicular to the direction of motion D. In any direction
5	Converse of pair production is known as	A. Compton effect B. annihilation of matter C. photoelectric effect D. none of these
6	The special theory of relativity treats problems involving	A. inertial frame of references B. accelerating frame of references C. both of these D. none of these
7	According to the special theory of relativity, time is	A. absolute quantity B. not absolute quantity C. constant quantity D. none of these
8	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
9	When platinum wire is heated, then at the temperature of $500^{\circ}\text{C}$ , it becomes:	A. Yellow B. Orange red C. Dull red D. White E. Cherry red
10	As the light shines on the metal surface, the electrons are ejected	A. slowly B. instantaneously C. either of these D. none of these
11	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
12	A photon is considered to have	A. Momentum B. Energy C. Wavelength D. All of the above
13	The mass 'm' of a body moving at $0.8c$ (whose rest mass is $m_0$ ) becomes	A. $2m_0$ B. $1.67m_0$ C. $0.67m_0$ D. $2.67m_0$
14	A particle having mass and charge equal to that of an electron is called:	A. Proton B. Positron C. Pion D. ...

		D. Pi-meson E. Both (C) and (D)
15	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
16	The inside cavity of the black body is	A. painted white B. painted silver C. blackened with soot D. painted red
17	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
18	The existence of positron was predicted by Dirac in	A. 1920 B. 1925 C. 1930 D. 1928
19	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
20	The idea of quantization of energy was proposed by:	A. Einstein B. Max Planck C. Maxwell D. Bohr E. Rutherford