

## Physics ECAT Pre Engineering Chapter 19 Dawn of Modern Physics

Sr	Questions	Answers Choice
1	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. $2.67m_0$
2	The nature of radiations emitted by a hot body depends upon its:	A. Material B. Temperature C. colour D. Volume E. Length
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	When a platinum wire is heated, it appears yellow at	A. $1600^\circ\text{C}$ B. $900^\circ\text{C}$ C. $1100^\circ\text{C}$ D. $1300^\circ\text{C}$
5	Wien's constant is measured in:	A. Metre per kelvin B. Metre kelvin C. Kelvin per meter D. Joules E. Dynes
6	Practically the quantity $v/c$ is always:	A. less than one B. Equal to one C. Greater than one D. all of these E. None of these
7	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
8	The photon of radio-waves has energy of about	A. $1\text{ MeV}$ B. $1\text{ KeV}$ C. $10^{-10}\text{ eV}$ D. $10^{10}\text{ eV}$
9	Positron was discovered by Carl Anderson in	A. 1920 B. 1925 C. 1928 D. 1932
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 year when A.H. Compton was awarded Nobel Prize is:	A. 1923 B. 1927 C. 1931 D. 1935 E. None of these
12	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
13	If a body reaches a speed equal to the speed of light, then its mass will become	A. zero B. very small C. infinity D. none of these
14	In process of annihilation of matter, the two photons produced move in opposite direction to conserve	A. momentum B. charge C. energy D. mass

15	Electromagnetic -radiation means:	<p>A. Photons  B. protons  C. Electrons  D. Mesons  E. None of these</p>
16	the dilation of time applies to the timing processes which are:	<p>A. Physical  B. Chemical  C. Biological  D. All of these  E. None of these</p>
17	When a platinum wire is heated, it appears white at	<p>A. 1600<span style="color: rgb(84, 84, 84); font-family: arial, sans-serif; font-size: small;">°C</span>  B. 900<span style="color: rgb(84, 84, 84); font-family: arial, sans-serif; font-size: small;">°C</span>  C. 1100<span style="color: rgb(84, 84, 84); font-family: arial, sans-serif; font-size: small;">°C</span>  D. 1300<span style="color: rgb(84, 84, 84); font-family: arial, sans-serif; font-size: small;">°C</span></p>
18	The concept of direction and position are purely	<p>A. absolute  B. relative  C. absolute or relative  D. none of these</p>
19	Davison and Germer performed experiment to verify	<p>A. de-Brogile hypothesis  B. theory of relativity  C. Newton's law of gravitation  D. Mass-energy relation</p>
20	A particle having mass and charge equal to that of an electron is called:	<p>A. Proton  B. Positron  C. Pion  D. Pi-meson  E. Both (C) and (D)</p>