Physics ECAT Pre Engineering Chapter 19 Dawn of Modern Physics Physics Online Test

Sr	Questions	Answers Choice
1	In the compton's effect, it is found that the wavelength of incident x-rays is	A. greater than the wavelength of scattered x-rays B. equal to the wavelength of scattered x-rays C. less than the wavelength of scattered x-rays D. any one of these
2	Photoelectrons are emitted when ultraviolet light falls on:	A. Casium B. Silver C. Potassium D. Any of these E. 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	The special theory of relativity is based on:	A. Four postulates B. Three postulates C. Two postulates D. One postulate E. None of these
5	The mass 'm' of a body moving at 0.8 c (whose rest mass is mo) becomes	A. 2 mo B. 1.67 mo C. 0.67 mo D. 2.67 mo
6	The special theory of relativity is based on the	A. one postulate B. two postulates C. three postulates D. four postulates
7	Intensity of light determines the:	A. Energy of each photon B. Number of photons C. Speed of photons D. Size of photons E. None of these
8	According to the special theory of relativity	A. mass and energy are same entities B. mass and energy are same entities but interconverible C. mass and energy are different entities but interconverible D. mass and energy are different entities but non-interconveritble
9	The positron was discovered by:	A. In cosmic radiation B. In 1932 C. By Carl Anderson D. All above E. By direc
10	When a platinum wire is heated, it appears white at	A. 1600°C B. 900°C C. 1100°C D. 1300°C
11	The mass of an object will be doubled at speed	A. 1.6 x 10⁸ms⁻¹ B. 2.6 X 10⁸ms⁻¹ C. 2.6 x 10⁷ms⁻¹ D. 2.6 x 10⁹ms⁻¹

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12	The ratio of energy E to the corresponding frequency (f) of the radiation (emitted or absorbed) is called:	A. Wien's constant B. Stefen's constnat C. Planck's constant D. Boltzmann's constant E. None of these
13	Max plank received the Nobel Prize in physics for his discovery of energy quanta in	A. 1900 B. 1906 C. 1912 D. 1918
14	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
15	According to Einstein, with the great increase in the speed of the body, the relativistic mass of the body	A. Remains constant B. Decreases C. Increases to infinity D. Reduced to zero
16	The energy of a photon is represented by	A. h/c² B. h/T C. hc² D. hf/c²
17	A particle of mass 5.0 mg moves with a speed of 8.0 m/s. Its de-Brogile wavelength is	A. 1.66 m B. 1.66 x 10⁻¹⁰m C. 1.66 x 10⁻²⁹cm D. 1.66 x 10⁻²⁹m
18	There is certain frequency below which no electrons are emitted from the metal surface, this frequency is known as	A. maximum frequency B. minimum frequency C. threshold frequency D. all of these
19	The year when A.H. compton was awarded Nobel Prize is:	A. 1923 B. 1927 C. 1931 D. 1935 E. None of these
20	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