Physics ECAT Pre Engineering Chapter 19 Dawn of Modern Physics

Sr	Questions	Answers Choice
1	The unit of work function is:	A. Joule B. Electron volt C. That of threshold frequency D. Both (A) and (B) E. None of these
2	The Stephen-Boltzmann law for the black body radiation is given by	A. E = T² B. E = -T² C. E = T⁴ D. E = -T⁴
3	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
4	As compared to the distance measured by an observer on Earth, the distance from Earth to a star measured by an observer in a moving spaceship would seem:	A. Smaller B. Lerger C. Same D. Much larger E. None of these
5	The special theory of relatively treats the problems involving:	A. Inertial frames of reference B. Non-inertial frames C. Non-accelerated frame D. Botha (A) and (C) E. Both (B) and (C)
6	Max plank received the Nobel Prize in physics for his discovery of energy quanta in	A. 1900 B. 1906 C. 1912 D. 1918
7	Davision and Germer performed experiment to verify	A. de-Brogile hypothesis B. theory of relativity C. Newton's law of gravitation D. Mass-energy relation
8	If a body reaches a speed equal to the speed of light, then its mass will became	A. zero B. very small C. infinity D. none of these
9	Electromagnetic -radiation means:	A. Photons B. protons C. Electrons D. Mesons E. None of these
10	A bar 1.0 m in length and located along x-axix moves with a speed of 0.75 c with respect to a stationary observer. The length of the bar as measured by the stationary observer is	A. 1.66 m B. 1.0 m C. 0.66 m D. 2.66 m
11	Converse of pair production is known as	A. Compton effect B. annihilation of matter C. photoelectric effect D. none of these
12	The Einstein's changes in length, mass and time are not observed in common life because	A. We dont observer then seriously B. The masses are too large C. Their speed is too small than the speed of right D. All of the above
13	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

14	A particle having mass and charge equal to that of an electron is called:	A. Proton B. Positron C. Pion D. Pi-meson E. Both (C) and (D)
15	The year when A.H. compton was awarded Nobel Prize is:	A. 1923 B. 1927 C. 1931 D. 1935 E. None of these
16	Compton shift refers to:	A. Photon B. Meson C. Proton D. Positron E. Both (B) and (D)
17	Photocell is a device which converts	A. chemical energy into electrical energy B. electrical energy into light energy C. heat energy into electrical energy D. light energy into electrical energy
18	According to the de-Brogile relation, an object of large mass and ordinary speed has	A. very small wavelength B. very large wavelength C. very small frequency D. all of these
19	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
20	When the atomic particle are moving with velocities approaching that of light:	A. Newton's laws become valid B. Relativistic effects become prominent C. Botha(A) and (B) are valid D. Neither (A)nor (B) E. There mass becomes zero.