Physics ECAT Pre Engineering Chapter 19 Dawn of Modern Physics

Sr	Questions	Answers Choice
1	S.I. unit of planks constant is	A. J-s⁻¹ B. J.s C. J.s⁻² D. J.s²
2	The special theory of relativity is based on the	A. one postulate B. two postulates C. three postulates D. four postulates
3	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
4	When a platinum wire is heated, it appears dull red at about	A. 500°C B. 900°C C. 1100°C D. 1300°C
5	In process of annihilation of matter, the two photons produced move in opposite direction to converse	A. momentum B. charge C. energy D. mass
6	The Stephen-Boltzmann law for the black body radiation is given by	A. E = T² B. E = -T² C. E = T⁴ D. E = -T⁴
7	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
8	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
9	Wave nature of particle was proposed by	A. Einstein B. Plank C. De-Brogile D. Max well
10	The energy of a photon is represented by	A. h/c² B. h/T C. hc² D. hf/c²
11	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
12	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
13	When a position comes close to an electron they annihilate into	A. one photon B. two photons which travel in the same direction C. two photons which travels in the opposite direction D. two photons which travel in any direction
		A. 100 ev

14	The energy of a photon in a beam of infrared radiation of wavelength 1240 nm is	B. 10⁶e v C. 10³e v D. 1.0 e v
15	At the temperature, a body emits radiation which is principally	A. of long wavelengths in the visible region B. of long wavelengths in the invisible infrared region C. of short wavelength in invisible ultraviolet region D. none of these
16	Compton derived an expression to find compton shift by applying to the process, the law of conservation of:	A. Energy only B. Momentum only C. Mass only D. Charge only E. Both (A) and (B)
17	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
18	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
19	The special theory of relativity treats problems invoving	A. inertial frame of references B. accelerating frame of references C. both of these D. none of these
20	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)