Physics ECAT Pre Engineering Chapter 19 Dawn of Modern Physics

Sr	Questions	Answers Choice
1	Due to relative motion of observer and the frame of reference of events, time always:	A. Dilates itself B. Contracts itself C. Stretches itself D. Both (A) and (C) E. None of these
2	The existence of position was predicted by Dirace in	A. 1920 B. 1925 C. 1930 D. 1928
3	A non-inertial frame of reference is one, in which	A. law of inertial is valid B. all laws of physics are the same in all frames C. a>0 or a<0 D. a=0
4	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
5	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
6	The analysis of the distribution of wavelengths of the radiation emitted from a hot body set the foundation of new mechanics, known as	A. classical mechanics B. Newtonian mechanics C. quantum mechanics D. statistical mechanics
7	Practically the quantity v/c is always:	A. less than one B. Equal to one C. Greater then one D. all of these E. None of these
8	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
9	The energy of a photon in a beam of infrared radiation of wavelength 1240 nm is	A. 100 ev B. 10⁶e v C. 10³e v D. 1.0 e v
10	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
11	The whole shape of the black body spectrum for all wavelengths was explained by the formula proposed by	A. Max plank B. Newton C. Einstein D. J.J. Thomson
12	If you are moving at relativistic speed between two points that are a fixed distance apart, then the distance between the two points appers	A. larger B. shorter C. equal D. none of these
13	Which of the following is not an example of intertial frame	A. a body placed on the surface of earth B. a body placed in a car moving with uniform velocity C. a body placed in a car moving with same acceleration D. none of these

14	The special theory of relativity is based on:	A. Four postulates B. Three postulates C. Two postulates D. One postulate E. None of these
15	In process of annihilation of matter, the two photons produced move in opposite direction to converse	A. momentum B. charge C. energy D. mass
16	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
17	When monochromatic light is allowed to fall on cathode, it begins to emit electrons, these electrons are called	A. thermoionic electrons B. free electrons C. photoelectrons D. slow electrons
18	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
19	The value of threshold frequency for different metals is	A. different B. same C. may be different or may be same D. none of these
20	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