Physics ECAT Pre Engineering Chapter 19 Dawn of Modern Physics

Sr	Questions	Answers Choice
1	The special theory of relativity is based on the	A. one postulate B. two postulates C. three postulates D. four postulates
2	If the radius of first orbit of hydrogen atom is 0.53° A the radius of second orbit will be	A. 2.120°A B. 0.212°A C. 21.2°A D. 0.14° a
3	The nature of radiations emitted by a hot body depends upon its:	A. Metarial B. Temperature C. colour D. Volume E. Length
4	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
5	Which of the following phenomenon proves the particle nature of light	A. interference B. diffraction C. photoelectric effect D. none of these
6	The existence of position was predicted by Dirace in	A. 1920 B. 1925 C. 1930 D. 1928
7	When a platinum wire is heated, it appears white at	A. 1600°C B. 900°C C. 1100°C D. 1300°C
8	An electron is accelerated through a potential difference of 50v. its de-Brogile wavelength is	A. 1.66 x 10⁻²⁹m B. 1.74 x 10⁻¹⁰cm C. 17.4 x 10⁻⁶m D. 1.74 x 10⁻¹⁰m
9	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
10	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.
11	The Nobel Prize on the explanation of photoelectric effect was awarded to:	A. Max. Planck B. Maxwell C. Bohr

		D. Rutherford E. None of these
12	According to the Max plank, energy is redialed or absorbed in	A. discrete packets B. continuous waves C. either of them D. none of these
13	Position was discovered by Carl Anderson in	A. 1920 B. 1925 C. 1928 D. 1932
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	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
16	The location and speed anywhere on earth can now be determined using relativistic effects by NAVISTAR to an accuracy of	A. 2 cm/s B. 20 cm/s C. 200 cm/s D. 2000 cm/s
17	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
18	Momentum is a parameter associated with	A. wave motion B. particle motion C. neither wave nor particle motion D. none of these
19	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
20	The intensity of emitted energy (with wavelength) radiated from a black body at different temperatures was initially measured by:	A. Lummer B. Planck C. Pringsheim D. Both (A) and (B) E. Both (A) and (C)