

Physics ECAT Pre Engineering Chapter 19 Dawn of Modern Physics

Sr	Questions	Answers Choice
1	The way through which electromagnetic radiations or photons interact with matter depends upon their:	A. Wavelength B. Frequency C. Energy D. Temperature E. All of these
2	Position was discovered by Carl Anderson in	A. 1920 B. 1925 C. 1928 D. 1932
3	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
4	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
5	The threshold frequency of sodium is 6×10^6 MHz. The cut-off wavelength for this metal will be	A. 500 m B. 500 nm C. 500 cm D. 500 cm E. None of these
6	The Stephen-Boltzmann law for the black body radiation is given by	A. $E = T^{2\sup}$ B. $E = -T^{2\sup}$ C. $E = T^{4\sup}$ D. $E = -T^{4\sup}$
7	A black body is	A. an ideal absorber B. an ideal radiator C. both of them D. none of them
8	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
9	The energy of the 4th orbit in hydrogen atom is	A. 2.5 ev B. - 3.5 ev C. -0.85 ev D. -13.6 ev
10	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
11	As the light shines on the metal surface, the electrons are ejected	A. slowly B. instantaneously C. either of these D. none of these
12	Momentum is a parameter associated with	A. wave motion B. particle motion C. neither wave nor particle motion D. none of these
13	When a platinum wire is heated, it appears orange red at	A. 500°C B. 900°C C. 1100°C D. 1300°C

		font-size: small; "> C D. 1300°C
14	The general theory of relativity treats problems involving	A. inertial frame of references B. accelerating frame of references C. both of these D. none of these
15	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
16	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
17	Absolute motion cannot be detected	A. in its own frame of references B. in a different frame of references C. both in its frame and different frame of references D. none of these
18	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)
19	If the radius of first orbit of hydrogen atom is 0.53 \AA the radius of second orbit will be	A. 2.120 \AA B. 0.212 \AA C. 21.2 \AA D. 0.14 \AA
20	The nature of radiations emitted by a hot body depends upon its:	A. Metarial B. Temperature C. colour D. Volume E. Length