

Physics ECAT Pre Engineering Chapter 20 Atomic Spectra

Sr	Questions	Answers Choice
1	The spectrum emitted from hydrogen filled discharge tube is:	A. Line spectrum B. Discrete spectrum C. And spectrum D. Absorption spectrum E. Both (A) and (B)
2	The life time of metastable state is equal to	A. Life time of excited state B. Greater than by excited state C. Zero D. Less than by excited state
3	Spectrum represents the number of component colours present in certain light in terms of:	A. Wavelength B. Frequency C. Energy D. Both (A) and (B) E. All of these
4	In case of braking radiations, when the rate of deceleration is very large, the emitted radiation corresponds to:	A. Short wavelength B. Large wavelength C. Very large wavelenth D. Low frequency E. Both (B) and (C)
5	The electric field lines start from:	A. Positive charge B. Negative charge C. Either A and B D. Neutron E. An atom
6	Tick the series which lies in the visible region:	A. Lyman series B. Balmer series C. Paschen series D. Brackett series E. P fund series
7	Balmer series was identified in:	A. 1685 B. 1785 C. 1885 D. 1985 E. 1585
8	Atoms of hydrogen gas can be excited by passing electric current through it when the gas is filled into the discharge tube at a pressure which is	A. Less than atmospheric pressure B. Much less than atmospheric pressure C. Greater than atmospheric pressure D. Much greater than atmospheric pressure E. Both C and D
9	By CAT scans, we can detect the density difference of the order of:	A. 1% B. 20% C. 30% D. 50% E. 70%
10	X-rays produced in a tube operating at 10 ⁵ V. The speed of X-rays produced is	A. 3 x 10 ⁸ m/s B. 3.1 x 10 ⁸ m/s C. 2.8 x 10 ⁸ m/s D. 1.88 x 10 ⁸ m/s
11	The process of formation of spectrum is called:	A. Interference B. Spectroscopy C. Dispersion D. Reflection E. Botha (A) and (D)
12	The range of wavelengths of colurs in the visible colours is	A. 140 nm to 456 nm B. 10 nm to 56 nm C. 410 nm to 656 nm D. 910 nm to 956 nm E. None of these
40	V	A. Kilo metres B. Metres

13	X-rays can penetrate in a solid matte through a distance of several:	C. Centimeters D. A few angstroms E. One micrometer
14	The minimum wavelength of X-rays produced of 1KV potential difference is applied across the anode and cathode of the tube is	A. 1.24 x 10 ⁻¹⁰ m B. 7.92 x 10 ⁻²⁰ m C. 2.78 x 10 ⁻¹⁴ m D. 3.88 x 10 ⁻¹¹ m
15	Gaussian surface is always:	A. Rectangular B. Spherical C. Cylinder D. Box shape E. Any of these
16	Static electricity is produced by the transfer of:	A. Electrons B. Protons C. One fluid D. Two fluid E. None of these
17	The photocopying process is called:	A. Geography B. Sonography C. Xerography D. Zerography E. None of these
18	Energy required by an electron revolving in certain orbit to jump to an excited state is called:	A. Ionization energy B. Ionization potential C. Excitation energy D. Excitation potential E. None of these
19	X-ray are also known as	A. Roentgen rays B. Maxwell rays C. Plank range D. Einstein rays
20	A metastable stae:	A. Is an excited state B. Is that in which excited electron is stable C. Is that in which excited electron is usually unstable D. Means a time interval of 10 ⁻⁸ second E. Both (A) and (C)