Physics ECAT Pre Engineering Chapter 20 Atomic Spectra

Sr	Questions	Answers Choice
1	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
2	In flesh, light element like carbon, hydrogen and oxygen predominate. Three elements allows _____ amount of incident X-ray to pass through them	A. Small B. Greater C. Equal D. Sometimes
3	By CAT scans, we can detect the density difference of the order of:	A. 1% B. 20% C. 30% D. 50% E. 70%
4	Ultraviolet region lies in _____ series	A. Layman B. Balmer C. P fund D. B racket
5	The lasing or active medium in He-Ne laser discharge tube is:	A. Nitrogen B. Helium C. Hydrogen D. Neon E. None of these
6	X-ray are also known as	A. Roentgen rays B. Maxwell rays C. Plank range D. Einstein rays
7	Consider a photon of continuous X-ray and a photon of characteristics X-ray of same wavelength. Which of the following is/are different for the two photons	A. Frequency B. Penetrating power C. Energy D. Method of creation
8	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
9	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)
10	An electron of the hydrogen atom in the second orbit is called its:	A. Ground state B. Excited state C. Ionized state D. Any of these E. None of these
11	The formula of Brackett series can be obtained by putting in the general formula, the value of n equal to:	A. one B. two C. three D. four E. five
12	The results of spectra obtained by Balmer were expressed in 1896 by:	A. Bohr B. Rydberg C. Planck D. Rutherford E. Coulomb
13	The holes created in the L and M shells are occupied by transitions of:	A. Electrons from lower states B. Electrons from higher state C. Positrons from higher states D. Electrons from K shell E. Both (A) and (B)
		A. Life time of excited state

14	The life time of metastable state is equal to	B. Greater than by excited state C. Zero D. Less than by excited state
15	X-rays can penetrate in a solid matte through a distance of several:	A. Kilo metres B. Metres C. Centimeters D. A few angstroms E. One micrometer
16	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
17	Static electricity is produced by the transfer of:	A. Electrons B. Protons C. One fluid D. Two fluid E. None of these
18	Balmer series lies in that region of electromagnetic wave spectrum which is called:	A. Visible region B. Invisible region C. Infra-red region D. ultraviolet region E. None of these
19	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 10⁻¹⁰m B. 7.92 x 10⁻²⁰m C. 2.78 x 10⁻¹⁴m D. 3.88 x 10⁻¹¹m
20	In helium Neon Laser Neon = 15% and Helium = 85% used. The lasing gas this unit is	A. Helium B. Neon C. Both D. None of these