

ECAT Physics Chapter 20 Atomic Spectra

Sr	Questions	Answers Choice
1	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
2	We can excite an atom by	A. Bombardment of particles B. Radiating photons C. Providing potential difference D. All answer are true
3	Braking radiation causes:	A. Continuous spectrum B. Line Spectrum C. Band spectrum D. Discrete spectrum E. All of these
4	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
5	The first series which was identified in the spectrum of hydrogen is called:	A. Lyman series B. Balmer series C. Paschen series D. Brackett series E. Pfund series
6	Selenium is:	A. An insulator B. A conductor C. Both A and B D. Excellent conductor E. None of these
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	Coulomb multiplied by volt by volt gives the unit called:	A. farad B. Ohm C. Second D. joule E. Watt
9	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
10	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)
11	The transitions of electrons in the hydrogen atom result in the emission of spectral lies in the:	A. Ultra red region B. Visible region C. Ultraviolet region D. Any of these E. None of these
12	Laser is a beam of:	A. Visible light B. Infra red light C. Ultra violet light D. Violet light only E. yellow light only
13	X-rays produced in a tube operating at 10^5 V. The speed of X-rays produced is	A. 3×10^8 m/s B. 3.1×10^8 m/s C. 2.8×10^8 m/s D. 2.9×10^8 m/s

D. 1.88×10^8 m/s

14 The value of the metastable state for Neon is

- A. 20.66eV
- B. 20.61eV
- C. 19.23eV
- D. 18.70eV

15 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

16 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

17 The inkjet printer eject a thin stream of:

- A. Water
- B. Oil
- C. Ink
- D. Any above
- E. None of these

18 An compared to solid matter, a crack or an air bubble allows:

- A. Great amount of X-rays to pass
- B. Smallest amount of X-rays to pass
- C. Very samall amount of X-rays to pass
- D. Any of these
- E. None of these

19 The process of formation of spectrum is called:

- A. Interference
- B. Spectroscopy
- C. Dispersion
- D. Reflection
- E. Botha (A) and (D)

20 The electric field lines start from:

- A. Positive charge
- B. Negative charge
- C. Either A and B
- D. Neutron
- E. An atom