

ECAT Pre General Science Physics Chapter 20 Atomic Spectra

Sr	Questions	Answers Choice
1	Photons must have energy equal to	A. ev B. En C. hf D. None of these
2	Lyman series in the spectrum of hydrogen exists in the :	A. Infra-red region B. Visible region C. Ultraviolet region D. Both(A) and (B) E. None of these
3	The first shell near the nucleus is	A. L-shell B. X-shell C. N-shell D. M-shell
4	A metastable state:	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)
5	The inkjet printer eject a thin stream of:	A. Water B. Oil C. Ink D. Any above E. None of these
6	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)
7	The process of formation of spectrum is called:	A. Interference B. Spectroscopy C. Dispersion D. Reflection E. Both (A) and (D)
8	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
9	The minimum wavelength of X-rays produced of 1KV potential difference is applied across the anode and cathode of the tube is	A. 1.24×10^{-10} m B. 7.92×10^{-20} m C. 2.78×10^{-14} m D. 3.88×10^{-11} m
10	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
11	Ultraviolet region lies in _____ series	A. Layman B. Balmer C. P fund D. B racket
12	The results of spectra obtained by Balmer were expressed in 1896 by	A. Bohr B. Rydberg C. Planck D. Rutherford E. Coulomb
13	Gaussian surface is always:	A. Rectangular B. Spherical C. Cylinder D. Box shape

E. Any of these

14 The He-Ne laser discharge tube is filled with:

- A. 85% He
- B. 15% He
- C. 50% He
- D. 60% He
- E. 85% Ne

15 As compared to solid matter, a crack or an air bubble allows:

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

16 Laser is a beam of:

- A. Visible light
- B. Infra red light
- C. Ultra violet light
- D. Violet light only
- E. yellow light only

17 The electric field lines start from:

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

18 Tick the series which lie/s in the infra-red region.

- A. Pfund series
- B. Brackett series
- C. Paschen series
- D. All of these
- E. None of these

19 X-ray are also known as

- A. Roentgen rays
- B. Maxwell rays
- C. Plank range
- D. Einstein rays

20 Balmer series was identified in:

- A. 1685
- B. 1785
- C. 1885
- D. 1985
- E. 1585