

ECAT Chemistry Chapter 5 Atomic Structure

Sr	Questions	Answers Choice
1	Find the magnetic moment of a divalent ion in aqueous solution if its atomic number is 25	A. 3.0 BM B. 4.9 BM C. 5.9 BM D. 6.9 BM
2	Spectrum of white light is continuous because	A. Colors separated by dark spaces B. There are no boundary lines between the colours C. The radiations are in infrared region D. The radiations fall in ultraviolet region
3	The arrangement of subshells in the ascending order of their energy on complete filling of 4f subshell the entering electrons goes to	A. 5s B. 5p C. 5d D. 5f
4	The orbitals having $n + l = 5$ are	A. 2p, 3d, 3s B. 3p, 3d, 5s C. 3s, 4p, 4d D. 5s, 4p, 3d
5	Neutron was discovered by:	A. Chadwick. B. Bohr. C. Rutherford. D. Plank.
6	The nature of positive ray depend on:	A. The nature of electrode. B. The nature of discharge tube. C. The nature of residual gas. D. All of above.
7	When 6d orbital is complete, the entering electron goes into:	A. 7f. B. 7s. C. 7p. D. 7d.
8	The configuration $1s^2 2s^2 2p^5 3s^1$ shows	A. Excited state of O^{2-} B. Excited state of neon C. Excited state of fluorine D. Ground state of fluorine atom
9	Splitting of spectral lines of the hydrogen atom under the influence or magnetic field is called	A. Stark effect B. Zeeman effect C. Compton effect D. Photoelectric effect
10	The limiting line of Balmer series in hydrogen spectrum lies in	A. Visible regions B. Ultraviolet region C. Infrared region D. x-rays region
11	The quantum number which determines the shape of the orbital is	A. principal B. azimuthal C. magnetic D. spin
12	Which of the following particles has longest wavelength, if they have same speed:	A. Proton. B. Neutron. C. Electron. D. Positron.
13	The number of electrons in the M shell of the element with atomic number 24 is	A. 24 B. 12 C. 13 D. 8
14	The atomic number of an element is 35 what is the total number of electrons present in all the p-orbitals of the ground state atom of that element?	A. 6 B. 11 C. 17 D. 23
		A. Nature of discharge tube.

15	The nature of positive rays depend on:	B. Nature of resident gas. C. Nature of electrode. D. All of above.
16	The third line of the Balmer series, in the emission spectrum of the hydrogen atom, is due to the transition from the	A. Fourth Bohr orbit to the first Bohr orbit B. Fifth Bohr orbit to the second Bohr orbit C. Sixth Bohr orbit to the third Bohr orbit D. Seventh Bohr orbit to the third Bohr orbit
17	$n + l$ value for 4f will	A. 2 B. 5 C. 7 D. 9
18	In Millikan method the oil droplet falls under the force of gravity but it moves upward due to	A. Electric field B. Magnetic field C. Incident light D. X-rays
19	Quantum number values for 2p orbitals are	A. $n = 2, l = 1$ B. $n = 1, l = 2$ C. $n = 1, l = 0$ D. $n = 2, l = 0$
20	Orbital having same energy is called:	A. Hybrid orbital. B. Valence orbital. C. Degenerate orbital. D. D-orbital.