

ECAT Chemistry Chapter 5 Atomic Structure Online Test

Sr	Questions	Answers Choice
1	The quantum number which describes the shape of the orbital is	A. Principle quantum number B. Spin quantum number C. Azimuthal quantum number D. Magnetic quantum number
2	Balmer's series is in _____ region	A. Visible B. UV C. I. R. D. None
3	The range of visible spectrum is	A. 300 - 600 nm B. 600 - 900 nm C. 400 - 750 nm D. 100 - 300 nm
4	$n + l$ value for 4f will	A. 2 B. 5 C. 7 D. 9
5	Neutrons was discovered by	A. Mosely B. Milliken C. Chadwick D. Ruherford
6	Charge to mass ratio (e/m) of the electron is determined by	A. R. A. Millikan B. J. J. Thompson C. G. J. Stoney D. None of these
7	Cathode rays emitted from cathode are	A. Canal rays B. Protons C. Electrons D. Positrons
8	The value of R (Rydberg's constant) is _____ m^{-1}	A. 1.0974×10^7 B. 1.0842×10^7 C. 1.082×10^{-7} D. Both a and b
9	Which of the atoms has $1s^2, 2s^2, 2p_x^2 2p_y^1 2p_z^1$ configuration	A. Nitrogen B. Carbon C. Fluorine D. Oxygen
10	Electrons in degenerate orbitals are placed in separate orbitals with same spin according to	A. Hund's rule B. Pauli exclusion principle C. Aufbau principle D. Mosley's law
11	An electron with $n = 3, l = 2$ will be in the sub-shell	A. 3p B. 3d C. 3f D. 3s
12	If the value of azimuthal quantum number is 3, then values of m the magnetic quantum no. will be	A. 0, 1, 2, 3 B. +3, +2, +1, -1, -2, -3 C. 0, -1, -2, -3 D. -3, 0, +3
13	The order of frequency of the following radiations ultraviolet, visible, infrared and microwave is	A. Microwave > infrared > visible > ultraviolet B. Visible > ultraviolet > microwave > infrared C. Ultraviolet > visible > infrared > microwave D. Infrared > microwave > ultraviolet > visible
14	Which have better penetrating power	A. Alpha rays B. Beta rays C. Gamma rays D. X-rays

15	The radiations with wavelength shorter than violet light are called	A. Ultraviolet B. Infrared C. Microwave D. Radio frequency
16	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
17	The energy of ionization of an atom is the energy difference between orbital	
18	Four d-orbitals contain four lobes while fifth contains only two lobes the orbital is	A. dxy B. dxz C. dz^2 D. $dx^2 - y^2$
19	When 6s orbital is complete then next electron goes to	A. 6p B. 6d C. 5d D. 4f
20	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
21	Electrons arranged in orbitals according to the increasing order of their $n + l$ values, this rule is named as	A. Hund's rule B. Heisenberg's principle C. Pauli exclusion principle D. Aufbau principle
22	The degenerate orbitals p-sub shell are	A. 2 B. 3 C. 5 D. 7
23	An orbital can accommodate maximum two electrons with opposite spins according to	A. Heisenberg's principle B. Aufbau principle C. Hund's rule D. Pauli exclusion principle
24	Their e/m , ratio resembles with that of electrons	A. Alpha rays B. Beta rays C. Gamma rays D. X-rays
25	The orbitals having $n + l = 5$ are	A. 2p, 3d, 3s B. 3p, 3d, 5s C. 3s, 4p, 4d D. 5s, 4p, 3d
26	For a 3P subshell the set of principle and azimuthal quantum number is	A. $n = 1, l = 2$ B. $n = 3, l = 0$ C. $n = 3, l = 1$ D. $n = 1, l = 3$
27	The total values of magnetic quantum number of subshell are five, the subshell is	A. S-subshell B. P-subshell C. D-subshell D. F-subshell
28	The size of electronic shell is described by	A. Azimuthal Q. no B. Magnetic Q.No C. Spin Q. No D. Principle Q. No
29	Schrodinger wave equation describes electron completely because	A. It describes a set of four quantum number B. It describes the particle nature of electron C. It measures wavelength of electron D. It describes electron moving in specific orbit
30	The value of Planck's constant 'h' is	A. 6.625×10^{-34} B. $6.625 \times 10^{-34} \text{ J sec}$ C. $6.625 \times 10^{-34} \text{ KJ}$ D. $6.625 \times 10^{-34} \text{ K Cal}$