ECAT Chemistry Chapter 5 Atomic Structure

Sr	Questions	Answers Choice
1	When the electron jumps form second third, fourth orbit to the fist orbit, the transitions are known as	A. Balmer series B. Lyman series C. Pfund series D. Brackett series
2	Energy of electron in first orbit of H atom is	A. -45.32 KJ/mole B. -82.08 KJ/mole C. -52.53 KJ/mole D. -1313.31 KJ/mole
3	For which of the following sets of quantum numbers and electron will have the highest energy?	A. 3,2,1,1/2 B. 4,2,-1,1/2 C. 4,1,0,-1/2 D. 5,0,0,1/2
4	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
5	Cathode rays emitted from cathode are	A. Canal rays B. Protons C. Electrons D. Positrons
6	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. Paulit exclusion principle D. Auf bau principle
7	In which of the following pairs, the numbers of electrons in the outermost shell are different?	A. As,Sb B. Ge,Sn C. In,pt D. Se,Te
8	The divisibility of atom was shown by	A. Stoney B. J.J. Thomson C. Millikan D. Rutherford
9	The radiations with wavelength shorter than violet light are called	A. Ultraviolet B. Infrared C. Microwave D. Radio frequency
10	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
11	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
12	The electronic configuration of an atom/ion can be defined by the following	A. Aufbau principle B. Pauli's exclusion principle C. Hund's Rule D. All the above
13	Rutherford's planetary like picture of the atomic modal was defective because	A. It did not describe the quantity of positive charge B. It did not explain the repulsion of protons within the nucleus C. No empty space between nucleus and the electrons D. Moving electron should radiate

		energy
14	Charge to mass ratio of electron was discovered by:	A. Millika. B. Rutherford. C. J.J. Thomson. D. Chadwick.
15	Photons of yellow colour are _____ energetic than violet colour	A. More B. Less C. Equal D. None
16	The number of neutrons in the element $^{9}_{4}Be$ is	A. 4 B. 5 C. 9 D. 13
17	The nature of positive rays depend on:	A. Nature of discharge tube. B. Nature of resident gas. C. Nature of electrode. D. All of above.
18	Rutherford's experiment led to the discovery of	A. Nucleus B. Electron C. Proton D. alpha particle
19	Which of the following orbitals have a dumb bell shape?	A. s B. p C. d D. f
20	In the ground state of an atom, the electron is present	A. In the nucleus B. In the second shell C. Nearest to the nucleus D. Farthest from the nucleus