ECAT Chemistry Chapter 5 Atomic Structure

Sr	Questions	Answers Choice
1	When electron jumps from n_2= 2,3,4,5,.... orbit to n_1= 1 orbit in the hydrogen atom, the radiations emitted give the spectral lines	A. Lyman series B. Blamer series C. Paschen series D. Brackett series
2	Consider the ground state of Cr atom (Z=24). The numbers of electrons with the azimuthal quantum numbers l = 1 and l = 2 are respectively	A. 12 and 4 B. 16 and 5 C. 16 and 4 D. 12 and 5
3	When the electron jumps form third, fourth, fifth orbits to the second orbit, the transitions are known as	A. Paschen B. Pfund C. Balmer D. Brackett
4	Which one of the following statements is true about discovery of neutrons?	A. These particles were formed by the bombardment of Alpha-particles on Beryllium. B. These particles are formed by the spiting of alpha-particles. C. These particles were discovered by natural radioactivity. D. None of above.
5	Mass of simple electron is:	A. <span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;">9.1 x 10⁻³¹ kg<o:p></o:p> B. <span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;">9.1 x 10⁻³⁰ kg<o:p></o:p> C. <span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;">1.66 x 10⁻³¹ kg<span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;"><o:p></o:p> D. <span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;">9.1 x 10⁻³¹ kg<o:p>

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6	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
7	Rutherford's atomic model suggests the existence of	A. Atom B. Nucleus C. alpha particle D. Measons
8	Light emitted from a source has its wave length 500nm, then its wave number will be	A. 2 x 10⁶m⁻¹ B. 2 x 10⁷m⁻¹ C. 5 x 10⁸m⁻¹ D. 5 x 10⁹m⁻¹
9	When an electric current is passed through discharge tube at low pressure, cathode rays are emitted from cathode these rays consist of:	A. Alpha rays. B. Negative particles. C. Electromagnetic rays. D. Positive particles.
10	The order of distance between the various Bohr orbits is	A. r₂-r₁> r₃-r₂> r₄-r₃> ..... B. r₁> r₂> r₂-r₃> r₄-r₃> ..... C. r₂-r₁= r₃- r₂= r₄- r₃> ..... D. r₂-r₁> r₃-r₂< r₄-r₃< ....
11	Which of the following is not a sub-atomic particle	A. Electron B. Proton C. Neutron D. Deuteron
12	The range of visible spectrum is	A. 300 - 600 nm B. 600 - 900 nm C. 400 - 750 nm D. 100 - 300 nm
13	The degenerate orbitals p-sub shell are	A. 2 B. 3 C. 5 D. 7
14	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
15	The divisibility of atom was shown by	A. Stoney B. J.J. Thomson C. Millikan D. Rutherford
16	The quantum number which describes the shape of the orbital is	A. Principle quantum number B. Spin quantum number C. Azimathal quantum number D. Magnetic quantum number
17	Cathode rays emitted from cathode are	A. Canal rays B. Protons C. Electrons D. Positrons
18	Heaviest particle is	A. Meson B. Neutron C. Proton D. Electron
19	In the ground state, an element has 13 electrons in its M shell. The element is	A. Copper B. Chromium C. Nickel D. Iron
		A. The atom did o have a nucleus and

20	Rutherford's model of atom failed because:	electrons B. It did not account fro the attraction b/w protons and neutrons C. It did no account for the stability of the atom. D. There is actually no space b/w the nucleus ad the electrons.