

Atomic Structure

Sr	Questions	Answers Choice
1	The ratio of the ionization energy of H and Be ³⁺ is	A. 1:1 B. 1:3 C. 1:9 D. 1:16
2	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
3	Which is not true with respect to cathode rays?	A. A stream of electrons B. Charged particles C. Move with speed as that of light D. Can be deflected by magnetic fields
4	Bohr model of atom is contradicted by:	A. Planck's quantum theory B. Pauli's exclusion theory C. Heisenberg's uncertainty principle. D. All of above.
5	Which one of the following particles has amass 1/1836 time, that of hydrogen?	A. Neutron. B. Proton. C. Electron. D. Positron.
6	Which of the following is not a sub-atomic particle	A. Electron B. Proton C. Neutron D. Deuteron
7	The e.m value for positive rays maximum for:	A. Oxygen. B. Nitrogen. C. Helium. D. Hydrogen.
8	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
9	Positive particle in discharged tube is produced by ionization of gas molecules, which is caused by	A. Gas molecules collide with anode B. Gas molecules are at high temperature C. Gas molecules produce X-rays D. Cathode rays remove electrons from gas molecules
10	Light emitted from a source has its wave length 500nm, then its wave number will be	A. 2 x 10 ⁶ m ^{- 1} B. 2 x 10 ⁷ m ^{- 1} C. 5 x 10 ⁸ m ^{- 1} D. 5 x 10 ⁹ m ^{- 1} D. 5 x 10 ⁹ m ^{- 1}
11	The limiting line of Blamer series in hydrogen spectrum lies in	A. Visible regionsB. Ultraviolet regionC. Infrared regionD. x-rays region
12	The maximum number of electrons in a subshell for which I = 3 is	A. 14 B. 10 C. 8 D. 4
13	The spectrum of helium is expected to be similar to that of	A. H B. Li ⁺ C. Na D. He ⁺
14	Smallest charge of electricity that has been measured so far is	A. Charge on a-rays B. Charge on electron (1.602 x 10 ⁻¹⁹ C)

		C. Charge on x-rays D. Charge on gamma rays
15	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.
16	The orbital in Rutherford's model is	A. Spiral B. Circular C. Both D. None
17	When potassium metal is exposed to violet light	A. Ejection of electrons takes place B. Ejection of some potassium atoms occurs C. There is no effect D. The absorption of electrons takes place
18	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.
19	When 6d orbital is complete, the entering electron goes into:	A. 7f. B. 7s. C. 7p. D. 7d.
20	Pauli's principle is applicable to	A. Degenerate orbits B. Two electrons in the same orbital C. One electron D. None