

NAT II Physical Science Chemistry

Sr	Questions	Answers Choice
1	Water (H ₂ O) is liquid while hydrogen sulphide (H ₂ S) is a gas because	A. Water has higher molecular weight B. Hydrogen sulphide is a weak acid C. Sulphure has high electronegativity than oxygen D. Water molecules associate through hydrogen
2	The valence orbital configuration of an element with atomic number 23 is	A. 3d ⁵ B. 3d ³ , 4s ² C. 3d ³ , 4s ¹ , 4p ¹ D. 3d ² , 4s ² , 4p ¹
3	Which quantum number is sufficient to describe the electron in hydrogen	A. <div style="background-color: #f0f0f0; padding: 2px;">n</div> B. n C. m D. s
4	When electrons revolve in stationary orbits,	A. There is no change in energy level B. They become stationary C. They are gaining kinetic energy D. There is increase in energy
5	The symbol of the element whose atoms have the outer most electronic configuration 2s ² sp ³ is	A. N B. Li C. P D. Na
6	The number of electrons in the M shell of the element with atomic number 24 is	A. 24 B. 12 C. 13 D. 8
7	The maximum number of electrons in a subshell for which $l = 3$ is	A. 14 B. 10 C. 8 D. 4
8	The ratio of the ionization energy of H and Be ³⁺ is	A. 1 : 1 B. 1 : 3 C. 1 : 9 D. 1 : 16
9	The mass of the neutron is of the order of	A. 10 ⁻²³ kg B. 10 ⁻²⁴ kg C. 10 ⁻²⁶ kg D. 10 ⁻²⁷ kg
10	The credit of discovering neutron goes to	A. Rutherford B. Langmuir C. Chadwick D. Austen
11	With increasing principle quantum number, the energy difference between adjacent energy levels in H atom	A. Decreases B. Increases C. Remain constant D. Decreases for low value of Z and increases for higher value of Z.
12	The ratio of close packed atoms to tetrahedral holes in cubic close packing is	A. 1 : 1 B. 1 : 2 C. 1 : 3 D. 2 : 1
13	Potassium crystallizes with a	A. Orthogonal lattice B. Cubic lattice C. Triclinic D. Orthorhombic lattice

14 How many kinds of space lattices are possible in a crystal?

- A. 23
- B. 7
- C. 230
- D. 14

15 In a crystal $a \neq b \neq c$, $\alpha = \gamma = 90^\circ$ and $\beta \neq 90^\circ$. It is

- A. Monoclinic
- B. Rhombic
- C. Trigonal
- D. Tetragonal