



Structure of the atoms class 9

1. Which of the following is not correct about cathode rays?
 - a) They are deflected towards the positive plate of the electric field
 - b) The nature of cathode rays doesn't depend upon the nature of the materials of the cathode
 - c) The nature of cathode rays depends upon the nature of the gas taken in the discharge tube
 - d) Cathode rays are made up of electrons
2. Proton was discovered by
 - a) J.J. Thomson
 - b) Rutherford
 - c) Chadwick
 - d) Goldstein
3. The charge and mass of the proton present in the nucleus of helium atom are respectively
 - a) +2,4u
 - b) +1,1u
 - c) +2,1u
 - d) +2.2u
4. Which of the following is not correct observation from Rutherford's scattering experiment?
 - a) Nucleus is heavy and small
 - b) Nucleus always carries positive charge
 - c) Atom is nearly 10^5 times greater than the size of the nucleus
 - d) The number of alpha particles hitting the nucleus is very large
5. Neutron is present in all atoms except
 - a) Protium b) deuterium c) tritium d) helium
6. Isotopes differ in the number of
 - a) Protons b) electrons c) neutrons d) nucleons
7. Isobars do not differ in the number of

- a) Protons b) electrons c) neutrons d) nucleons
8. A monovalent anion has 10 electrons and 10 neutrons. The atomic number and mass number of the element are respectively
- a) 10,20 b) 9,18 c) 11,20 d) 9,19
9. A trivalent cation of an element contains 10 electrons. The atomic number of the element is
- a) 10 b) 7 c) 13 d) none of these
10. The atomic number of an element is 15. Hence, it will show a valency of
- a) 3 only b) 5 only c) both 3 and 5 d) neither 3 nor 5
11. The electronic configuration of calcium with atomic number 20, is
- a) 2,8,10 b) 2,9,9 c) 2,8,8,2 d) 2,10,8
12. The valency of which of the following element is zero?
- a) Hydrogen b) helium c) gold d) silver
13. which of the following isotope is used in the treatment of blood cancer?
- a) ^{32}P b) ^{131}I c) ^{60}Co d) any one of these
14. According to Rutherford's model, most of the mass of an atom is concentrated in
- a) Electrons
- b) Protons
- c) Nucleus
- d) Neutrons
15. The number of protons is 13 and electrons are 10 what will be the charge?
- a) 1
- b) +3
- c) -3
- d) 4
16. An alpha particle has
- a) 2 positive charges and 2 mass units
- b) 4 positive charges and 4 mass units
- c) 2 positive charges and 4 mass units
- d) 1 positive charge and one mass unit
17. 2,8,8 configuration is of
- a) Ar, Cl, K
- b) O, N, Ar

c) K,Ca,H

d) H, He, Br

18. A and Z are equal in

a) protium

b) calcium

c) Helium

d) Hydrogen

19. Canal rays are

a) anode rays

b) cathode rays

c) both

d) can not say

20. the average atomic mass unit of chlorine is

a) 35

b) 37

c) 35.5

d) 40

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