



Page No 191

Solution 01

Neutron is not present in ordinary hydrogen atom.

Solution 02

J. J. Thomson

Solution 03

Maximum of  $2 e^-$  can be accommodated in K shell of an atom.

Solution 04

Maximum of  $8 e^-$  can be accommodated in L shell of an atom.

Solution 05

Maximum of  $18 e^-$  can be accommodated in M shell of an atom.

Solution 06

Maximum of  $32 e^-$  can be accommodated in N shell of an atom.

Solution 07

(a) Maximum of  $2 e^-$  can be accommodated in innermost shell of an atom.

(b) Maximum of  $8 e^-$  can be accommodated in outermost shell of an atom.

Solution 08

Three subatomic particles present in atom are electrons, protons and neutrons.

Solution 09

Electron is negatively charged particle present in atoms of all the elements.

Solution 10

J. J. Thomson discovered electron.

Solution 11

(a)  $e^-$

(b)  $p^+$

(c) n

Lakhmir Singh Class 9 CBSE Chemistry Text Book Page No 192

Answers

Solution 12

(a) False

(b) True

(c) False

Solution 13

Nucleus is the central part of an atom in which protons and neutrons are held together.

Solution 14

K, L, M, N were the letters used by Bohr to represent electron shells in an atom.

Solution 15

Protons and neutrons actually determine the mass of atom.

Solution 16

Proton is the positively charged particle present in atoms of all the elements.

Solution 17

Electronic configuration of hydrogen : 1

Solution 18

Proton is 1840 times heavier than electron.

Solution 19

Hydrogen gas produces anode rays consisting of protons in the

discharge tube experiment.

Solution 20

Nucleus was discovered by Rutherford in the alpha particle scattering experiment.

Solution 21

Positive charge on the nucleus is due to presence of protons.

Solution 22

(a) 8 electrons are present in outermost shell of Neon.

(b) 7 electrons are present in outermost shell of Chlorine.

Solution 23

(a) L shell can accommodate maximum of  $8e^-$ .

(b) N shell can accommodate maximum of  $32e^-$ .

Solution 24

(a) K shell can accommodate maximum of  $2e^-$ .

(b) M shell can accommodate maximum of  $18e^-$ .

Solution 25

(i) Chadwick discovered 'neutron'.

(ii) Thomson discovered 'electron'.

(iii) Goldstein discovered 'proton'.

Solution 26

(a) Proton has relative charge of +1.

(b) Electron has relative charge of -1.

(c) Neutron has relative charge of 0.

Solution 27

(a) Atomic number

(b) Mass number

(c) 11

(d) 23

(e) 20

(f) Nucleus

(g) Electrons

(h) Protons

(i) 8

(j) 18

(k) Neutron

(l) Negative; Positive; No

Solution 28

Electron is a negatively charged particle found in the atoms of all elements.

The relative mass of an electron is  $1/1840$  u.

A charge of -1 is carried by an electron.

Solution 29

**Absolute mass of electron is  $9 \times 10^{-28}$  Kg.**

**Absolute charge on electron is  $1.6 \times 10^{-19}$  C.**

Solution 30

The deflection of fast moving alpha- particles through small and large angles in Rutherford's scattering experiment is the evidence for the presence of nucleus in an atom.

Solution 31

Important information furnished about nucleus in Rutherford's alpha- particle scattering experiment is:

(i) Nucleus of an atom is positively charged.

(ii) Nucleus of an atom is very hard and dense.

(iii) Nucleus of an atom is very small as compared to the size of an atom as a whole.

Solution 32

Most of the alpha- particles passed straight through the gold foil without any deflection in Rutherford's alpha- particle scattering experiment, this shows that most of the space in an atom is empty.

Solution 33

There are equal no. of positive and negative particles in an atom, so

it is neutral as a whole.

Solution 34

(a) Proton is present in same fixed no. in the atoms of any particular element.

(b) Atomic no. is characteristic for any particular element.

\*\*\*\*\* END \*\*\*\*\*