



A JESUIT CHRISTIAN MINORITY INSTITUTION

WORKSHEET-28(CLASS-11)

TOPIC- STRUCTURE OF ATOM

SUBTOPIC-BASIC CONCEPT

SUBJECT – CHEMISTRY DURATION – 30 mins F.M. - 15 DATE -01.08.20

1.1 Wave nature of electron was explained by-

a) De- Broglie b) Heisenberg c) Paulid) Newton

1.2 With increase in E_k (Kinetic Energy), the wavelength of the moving electron-

(a) Increase (b) Decreases(c)Remains unchanged(d) Can't be predicted

1.3 An electron has-

(a) Only wave nature(b) Only particle nature(c) None of these(d) Both wave and particle nature

1.4 An electron can't reside inside the nucleus of an atom can be explained by-

(a)Uncertainty principle (b) Planck's model (c)Bohr's model(d) Both b and c

1.5The value of Planck's constant is-

(a) 6.626x 10^{-31} Js (b) 6.626x 10^{-34} Js(c) 6.626x 10^{-43} Js(d) 6.626x 10^{-39} Js

1.6 A dipositive ion Z⁺⁺ has 2e⁻in the K shell, 8 electrons in the L shell and 8e⁻ in the M shell. Atomic number of Z is-(a) 19 (b) 20 (c) 16(d) 15

1.7 The number of unpaired electrons in a chromic ion Cr⁺² (atomic number 24) is-(a) 6 (b) 4 (c) 3(d) 1

1.8 De- Broglie hypothesis helps to prove-

a) Rutherford's modelb) None of thesec) Planck's model d) Bohr's theory of quantisation

1.9 The ion that is isoelectronic with NO is- a) CN^{-} b) $O^{2+}\,c)~O^{2-}\,d)~N_{2}^{-}$

1.10 The fundamental particle that has least mass is-

(a) Meson (b) alpha-particle (c) electron (d) neutron

1.11 The number of spectral lines obtained due to transition of an electron from n=2 to n=5 is-

(a) 10b) 12c) 9d) 11

1.12The shortest wavelength is obtained for the transition-

(a) n=2 to nInfinity b) n=2 to n=3 c) n=2 to n=4 d) n=2 to n=5

1.13 Which of the following series falls within the visible region?

- (a) Balmerb) Lymanc) Humphreysd) Pfund
- 1.14 The longest wavelength is obtained for the transition-(a) n=2 to nInfinity b) n=2 to n=3 c) n=2 to n=4 d) n=2 to n=5

1.15 Find the number of unpaired electrons present in Mn²⁺: (a) 6 b) 4 c) 5d) 3

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