1. Canal rays are:
   A. Negatively charged
   B. Neutral rays
   C. Positively charged radiations
   D. Light rays (C)

Explanation : Canal rays are positively charged radiations.

2. In Thomson's model, atom is neutral because:
   A. It has no electrons
   B. Positive and negative charges are equal
   C. Nucleus has no charge
   D. Only protons are present (B)

Explanation : Equal positive and negative charges make the atom neutral.

3. According to Rutherford, nucleus contains:
   A. Electrons
   B. Neutrons only
   C. Protons
   D. Shells (C)

Explanation : Rutherford's model says positively charged protons are in the nucleus.

4. In Bohr's model, first shell is:
   A. L
   B. M
   C. N
   D. K (D)

Explanation : K shell is the first shell.

5. In Bohr's model, third shell is:
   A. K
   B. L
   C. M
   D. N (C)

Explanation : The third shell is M shell.

6. Three sub-atomic particles are:
   A. Proton, atom, shell
   B. Proton, electron, neutron
   C. Electron, nucleus, orbit
   D. Proton, molecule, neutron (B)

Explanation : Atom contains protons, electrons, and neutrons.

7. Helium has atomic mass 4 u and 2 protons. Neutrons =
   A. 1
   B. 2
   C. 3
   D. 4 (B)

Explanation : Neutrons = 4 − 2 = 2.

8. Electronic configuration of carbon is:
   A. 2, 6
   B. 2, 4
   C. 2, 8
   D. 4, 2 (B)

Explanation : Carbon has 6 electrons arranged as 2, 4.

9. Electronic configuration of sodium is:
   A. 2, 8, 1
   B. 2, 7, 2
   C. 2, 8, 2
   D. 8, 2, 1 (A)

Explanation : Sodium has 11 electrons arranged as 2, 8, 1.

10. If K and L shells are full, total electrons are:
    A. 8
    B. 10
    C. 12
    D. 18 (B)

Explanation : K holds 2 and L holds 8, so total = 10.