1. The chemical elements found in cells as organic compounds are called —
   A. Minerals B. Biomolecules
   C. Ash particles D. Ions (B)

Explanation : Organic compounds found in living tissues are called biomolecules.

2. For chemical analysis of living tissue, the tissue is crushed with —
   A. Hydrochloric acid
   B. Trichloroacetic acid
   C. Sulfuric acid
   D. Nitric acid (B)

Explanation : Living tissue is crushed in a mortar after mixing trichloroacetic acid.

3. After filtering the crushed tissue paste, the two parts obtained are —
   A. Filtrate and retentate
   B. Cell wall and cytoplasm
   C. Sugar and protein
   D. Ash and vapour (A)

Explanation : Filtration gives an acid-soluble filtrate and an acid-insoluble retentate.

4. The substance left after complete burning of tissue is called —
   A. Filtrate B. Retentate
   C. Ash D. Metabolite (C)

Explanation : After burning, organic compounds become gases, and the remaining material is ash.

5. Ash mainly contains —
   A. Only proteins
   B. Only carbohydrates
   C. Inorganic elements and compounds
   D. Only vitamins (C)

Explanation : Ash contains inorganic elements like calcium and magnesium and compounds like sulphates and phosphates.

6. Which element is much higher in the human body than in Earth's crust?
   A. Silicon B. Carbon
   C. Sodium D. Magnesium (B)

Explanation : Carbon is about 18.5% in the human body but only about 0.03% in Earth's crust.

7. Chemicals formed under metabolic pathways are called —
   A. Bio-metabolites
   B. Cellulose fibres
   C. Inorganic salts
   D. Ash molecules (A)

Explanation : Products formed through metabolic pathways are called bio-metabolites.

8. Primary metabolites are necessary for —
   A. Only colour production
   B. Primary metabolic activities
   C. Only fragrance formation
   D. Only defence against enemies (B)

Explanation : Primary metabolites are required for important activities like respiration and photosynthesis.

9. Which of the following is a primary metabolite?
   A. Rubber B. Gum
   C. Sugar D. Essential oil (C)

Explanation : Sugar, amino acids and vitamins are examples of primary metabolites.

10. Which group contains only secondary metabolites?
    A. Sugar, amino acid, vitamin
    B. Rubber, gum, alkaloid
    C. Water, sodium, calcium
    D. Protein, nucleic acid, starch (B)

Explanation : Rubber, gum, alkaloids, flavonoids, essential oils, pigments and antibiotics are secondary metabolites.