

Week One

CHEMICAL COMPOSITION OF PLANT AND ANIMAL BODIES

Plant and Animal bodies consists of:

Water

Organic acids (carbohydrates, lipids, proteins, complexes of lipids, proteins and carbohydrates, Nucleic acids and vitamins)

Inorganic salts (minerals)

Water

Constitutes 50% -60% of body mass of adult animals, higher amount is found in newborns.

Functions of water are 2 fold:

(a) It performs a key role in body metabolism since all biochemical reactions in the body require water.

Water acts as a solvent, a transport medium for dissolved substances in blood, tissue fluids etc.

It is a component in many chemical reactions such as hydrolysis and oxidation

(b) It also helps in maintaining body temperature through evaporative cooling, blood flow etc.

In animals, water is supplied as:

Drinking water

Water in feeds

Water from metabolic reactions e.g. water associated with fat or protein breakdown (negative energy balance).

In plants, water is absorbed from:

The soil or

The atmosphere.