

## Food and Nutrition

### Solution 1.a:

Living things which can make their own food are called autotrophic living things.

Example: Plants

### Solution 1.b:

A diet which includes all the constituents of food such as carbohydrates, proteins, fats, vitamins and minerals in the right proportions is called a balanced diet.

### Solution 1.c:

Assimilation is the process by which new complex compounds are synthesised from the absorbed simple substances formed during digestion. These complex substances are then used for growth and repair of the body.

### Solution 1.d:

The tip of the root has several root hair. Each root hair has a cell membrane and a cell wall around it. The salt and water present in the soil pass through the semi-permeable cell membrane into the cell by the process called osmosis. Gradually, the salt solution reaches the inner parts of the root and through the stem to all other parts of the plant.

### Solution 1.e:

Plants require sunlight, chlorophyll, carbon dioxide and water for making food.

### Solution 2:

- An amoeba moves with the help of **pseudopodia**.
- Plants need light, chlorophyll, **carbon dioxide** and water for making food.
- The **saliva** secreted by the salivary glands is fixed in the food in the mouth itself.
- The carbon dioxide in the air in the jar is absorbed by **potassium hydroxide**.

### Solution 3:

Osmosis is the process by which a liquid passes from a region of high concentration to a region of low concentration through a semi-permeable membrane. The cells of the raisins are covered with a semi-permeable membrane and contain sugar solution. When

the raisins are soaked in water in a vessel, the concentration of water inside the cells is low as compared to the surrounding medium. Hence, water from outside enters the cells through the semi-permeable cell membrane through osmosis and the raisins swell up or become turgid.

**Solution 4:**

<b>Glands</b>	<b>Function</b>
(a) Salivary gland	2. Digestion of carbohydrates
(b) Gall bladder	3. Digestion of proteins, fats and carbohydrates
(c) Pancreas	4. Regulation of sugar level
(d) Stomach	1. Making food acidic