**72) Name components of the transport system in organised plants.**

**Ans** :- (….Contd)

The water lost through the stomata is replaced by water from the xylem vessel in the leaf. The evaporation of water molecules from the cells of a leaf creates a suction pulling water from the xylem cells of the roots.

This water loss is transpiration, allowing absorption and upward movement of water and minerals dissolved in it from roots to leaves. Transpiration is the major driving force in the movement of water in the Xylem, Xylem during the day when the stomata are open. This mechanism is also called the cohesion of water theory or transpiration pull

**73) How is food transported in plants?**

**Ans:** The food is transported by phloem to the plant parts like roots, fruits, seeds and growing regions. This process is called translocation. In the phloem sieve tubes are present, which, together with companion cells, translocate food in upward and downward directions. ATP is the energy provided for translocation.

**74) Describe the structure of the nephron with functioning.**

**Ans:** Nephron is a long-coiled tubule. It's one-end cup-shaped and called Bowman's capsule. The other end connects to a urine collecting duct of the kidney. The glomerulus is a bundle of blood capillaries in the Bowman's capsule.

A nephron is a functional unit of the kidney. It aids waste product removal and filters impure blood.

**75) How do plants get rid of excretory products?**

**Ans:** Plants get rid of oxygen and carbon dioxide through diffusion. When the old branches and leaves become useless, they are shed off. Plants have a mechanism by which the roots release waste products. Raisins or gums are the waste products accumulated near the bark.

**76) How is the amount of urine produced regulated?**

**Ans:** The kidney can reabsorb water from the filtrate. This mechanism depends upon the amount of water left in the body and the filtrate. The relative water concentration signals the brain based on whether water is reabsorbed or released. So this is how the kidneys regulate urine formation.

**77) Name organisms which have an anaerobic mode of respiration.**

**Ans:** Bacteria and Yeast have an anaerobic mode of respiration.

**78. What is the role of saliva in the digestion of food?**

**Ans:** Saliva contains water, salts, mucin and salivary amylase, which breaks down starch present in the food into sugar.

**79. Mention the conditions necessary in autotrophic nutrition.**

**Ans:** The following conditions are necessary for autotrophic nutrition:

The presence of carbon dioxide carries out photosynthesis.

Water

Sunlight

Chlorophyll.

**80. What are the by-products of autotrophic nutrition?**

**Ans.** Oxygen is the by-product of autotrophic nutrition.

**81. How are the alveoli designed to maximise the exchange of gases?**

**Ans:** The inner surface of the lungs has smaller tubes that terminate in the alveoli, which are balloon-like structures. The extensive network of blood vessels is present in the walls of the alveoli.

There are millions of alveoli present in the lungs. The alveolus provides a large surface area for the gaseous exchange. If all the alveoli are unfolded from the two human lungs, it will give an area of about 80 square meters.

**82. Multiple choice questions.**

**1) The large intestine in humans mainly carries out…….**

a) Absorption b) Assimilation

c) Digestion of fats

d) Digestion of carbohydrates

**Ans** (a) Absorption

**2) The part of the digestive system where no digestion takes place is……**

a) Ileum b) Stomach

c) Mouth d) Oesophagus

**Ans:** (d) Oesophagus

**3) A biochemical compound combined with oxygen and distributed throughout the human body is…….**

a) Water b) Urea

c) Haemoglobin d) Acetylcholine

**Ans**: (c) Haemoglobin

**4) The process in which water loss takes place in the form of water vapour through stomata is called…..**

a) Transportation b) Transpiration

c) Guttation d) Translocation

**Ans:** (b) Transpiration

(Contd…..)