



SHIKSHA CLASSES

Sub. : Science
Std. : Xth - CBSE

Answer Paper
6. Life Processes.

Marks : 30
Time : 1 Hour.

SECTION (A)

(Each - 1 Mark)

Q.1 : The enzymes pepsin and trypsin are secreted respectively by

Ans. : a) Stomach and pancreas

OR

Which of the following help in protecting the inner lining of the stomach from the harmful effect of hydrochloric acid?

Ans. : a) Mucus

Q.2 : Write the name of the vein which brings clean blood from the lungs into the heart.

Ans. : Pulmonary vein.

OR

Write the name of procedure which is used for cleaning the blood of a person by separating the waste substance from it.

Ans. : Dialysis.

Q.3 : **Assertion (A) :** Arteries are thick walled and elastic in nature.

Reason (R) : Arteries have to transport blood away from the heart.

Ans. : b) Both A and R are true but R is not the correct explanation of the assertion.

Q.4 : **Assertion (A) :** In a healthy adult, the initial filtrate in the kidneys is about 180 L daily, but the actual volume excreted is only a litre a day.

Reason (R) : Most of the filtrate is lost from the body in the form of sweat.

Ans. : c) A is true but R is false.

Q.5: **Assertion:** Translocation of food occurs in Plants.

Reason: Xylem tissue is responsible for Translocation.

Ans. : a) Both A and R are true and R is correct explanation of the assertion.

Q.4 : Movement of the synthesized products from the leaves to the roots and other parts of a plant's body takes place through the phloem. This process is known as:

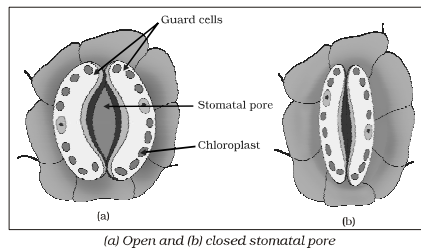
Ans. : a) Translocation

OR

The process of diffusion of solvent particles from the region of less solute concentration to a region of high solute concentration through semi-permeable membrane is known as

Ans. : b) Osmosis

Q.5 : Observe the figure and answer any two from following 5(i) to 5(iii) question. (2 Mark)



i) Identify the fig (a).

Ans. : a) Open stomatal pore

ii) The function of the stomata is

Ans. : d) Both a and b

iii) ----- in plants which acts as a catalyst.

Ans. : b) Chlorophyll

Q.8: Which region of the alimentary canal absorbs the digested food?

Ans. : b) Small intestine

Q.9: The exit of unabsorbed food material is regulated by

Ans. : d) anal sphincter

Q.10: Raw materials required in the autotrophic mode of nutrition involves:

- i. Carbon dioxide and water
- ii. Chlorophyll
- iii. Nitrogen
- iv. Sunlight

Ans. : c) (i), (ii) and (iv)

Q.11 : The excretory unit in the human excretory system is called

Ans. : a) Nephron

Q.12 : The substance which is not reabsorbed into the blood capillaries surrounding the tubule of a nephron is mainly

Ans. : c) Urea

Q.13: The procedure of cleaning the blood of a person by using a kidney machine is known as

Ans. : c) Dialysis

Q.14: Identify the correct path of urine in the human body.

Ans. : d) Kidney → ureter → urinary bladder → urethra

SECTION (B) (Each - 2 Mark)

Q.15: Write the difference between aerobic and anaerobic respiration.

Aerobic respiration	Anaerobic respiration
1) It takes place in presence of oxygen.	1) It takes place in absence of oxygen.
2) CO ₂ and water are the end products of aerobic respiration.	2) Alcohol is the end product of anaerobic respiration.
3) Release more energy.	3) Release less energy.
4) This process of break down of glucose take place in cytoplasm.	4) The process of break down of glucose takes place in mitochondria.

OR

Write two difference between the transport of materials in xylem and phloem.

- Ans. :** i) Xylem tissue helps in the transport of water and mineral Phloem tissue helps in the transport of food.
- ii) Water is transported upwards from roots to aerial parts of plants through xylem.
Food is transported in both upward and downward directions through phloem.

Q.16: What do you mean by double circulation of blood?

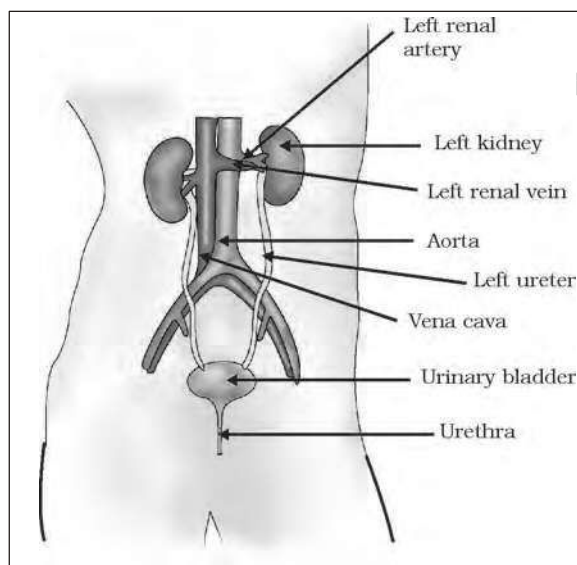
- Ans. :** Double circulation is the passage of same blood twice through heart first from right side to lungs and back to left side for passage to rest of the body to be returned to right side. It consist of two components pulmonary circulation and systemic circulation. In pulmonary circulation deoxygenated blood is converted into oxygenated blood. In systemic circulation oxygenated blood is supplied to all parts of the body. It gets changed into deoxygenated form.

SECTION (C)

(Each - 3 Mark)

Q.17: Draw the diagram of human excretory system.

Ans. :

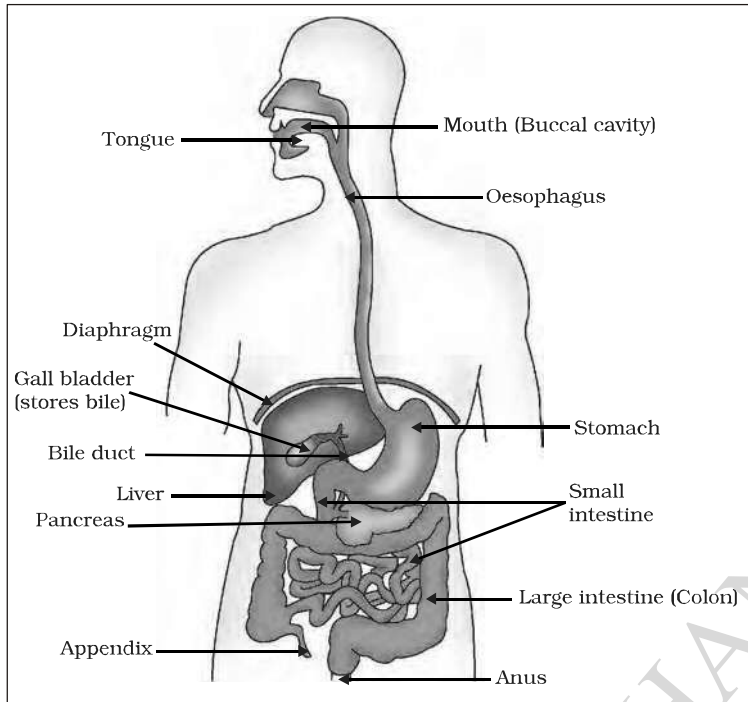


Excretory system in human beings

OR

: Draw the diagram of human digestive system.

Ans. :



Human digestive system

Q.18: Describe in brief the function of kidneys, urinary bladder and urethra.

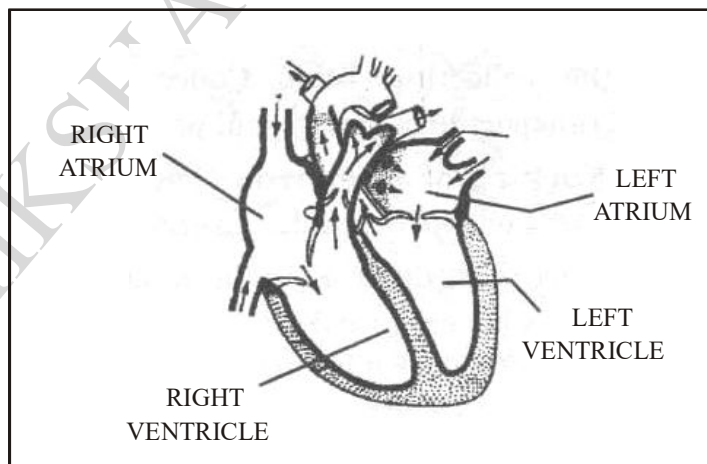
Ans. : **Function :**

- i) **Kidney :** The kidney filter the blood and concentrate the filtrate to make urine. They also help to regulate blood pressure.
- ii) **Urinary bladder :** It is like a holding tank for the urine until it's ready to be excreted.
- iii) **Urethra :** It is the tube that connects the urinary bladder to the outside of the body for excretion.

SECTION (D)

(5 Mark)

Q.19: Explain an internal structure of human heart with diagram.



Ans. :

Internal Structure of Human Heart

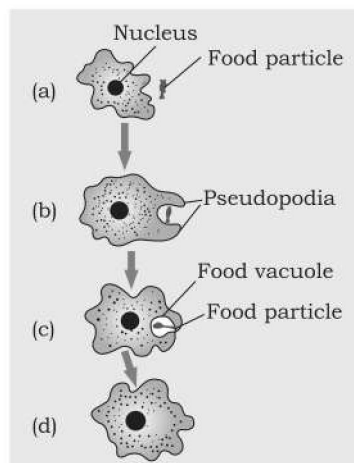
Right Atrium	Right Ventricle
i) It receives deoxygenated blood from the whole body. ii) It contracts and pours the deoxygenated blood into the right ventricle.	1. It receives deoxygenated blood from right atrium 2. On contraction, it pumps the deoxygenated blood into the pulmonary arch. This blood is taken to lungs by two pulmonary arteries for oxygenation.
Left Atrium	Left Ventricle
i) It contains oxygenated blood which is brought into it from the lungs by four pulmonary veins. ii) On contraction, it sends the oxygenated blood into the left ventricle.	1. It receives oxygenated blood from left atrium. 2. On contraction, it sends the oxygenated blood to different body parts through aorta.

OR

: **Explain the nutrition process in an Amoeba.**

Ans. : The various steps involved in the process of nutrition are :

- i) **Ingestion** : Amoeba ingests food with the help of its finger - like extensions, called pseudopodia. When a food particle approaches Amoeba, it forms pseudopodia around it and forms a food vacuole inside the Amoeba
- ii) **Digestion** : Various enzymes from the cytoplasm enter into the food vacuole and break them down into simple soluble molecules.
- iii) **Absorption** : The simple soluble food is absorbed by cytoplasm of Amoeba from food vacuoles through the process of diffusion.
- iv) **Assimilation** : Amoeba cell obtains energy from the absorbed food through respiration. This energy is utilised by Amoeba for its growth and repair of the body.
- v) **Egestion** : When a considerable amount of undigested food gets collected inside Amoeba, its cell membrane ruptures and throws out the undigested food.



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