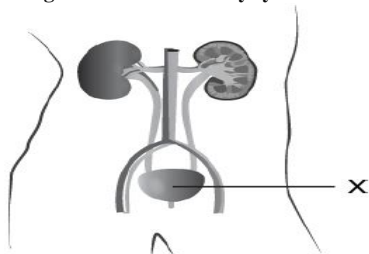


## SCIENCE : Life Processes

### 102. Multiple choice questions.

4) The image shows the excretory system in humans.



What is the importance of the labelled part in the excretory system?

- (a) It produces urine.
- (b) It filters waste from the blood.
- (c) It stores the urine till urination.
- (d) It carries urine from the kidney to the outside.

Correct

Ans: (c)

5) When a few drops of iodine solution are added to rice water, the solution turns blue-black in colour. This indicates that rice water contains:

- (a) Fats
- (b) Complex proteins
- (c) Starch
- (d) Simple proteins

Ans: (c)

6) The characteristic processes observed in anaerobic respiration are:

- i) Presence of oxygen
  - ii) Release of carbon dioxide
  - iii) Release of energy
  - iv) Release of lactic acid
- (a) i), ii) only      (b) i), ii), iii) only  
(c) ii), iii), iv) only      (d) iv) only

Ans: (c)

7) Which of the following is the important characteristic of Emphysema?

- (a) Destruction of the alveolar wall and air sacs in the lungs are damaged
- (b) Increase in the growth of the lung tissue
- (c) Inflammation in the wall of the bronchi
- (d) Thickening of the artery walls of the lungs

Ans: (a)

8) Digestion of food starts from which organ of the human digestive system?

- (a) Mouth due to the presence of saliva
- (b) Oesophagus that moves the food in the gut
- (c) Pancreas that releases juices for fat breakdown
- (d) Stomach that helps in mixing food with digestive juices

Ans: (a)

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## METALS AND NON-METALS

Answer the following questions:-

1. Why are metals good conductors of heat and electricity?

Ans:- Atoms of metallic elements can lose electrons easily. Thus, metals have loosely bound electrons, therefore, they are good conductors of heat and electricity.

2. Why do metals possess luster?

Ans:- As electrons in metals are loosely held, they are mobile. Thus the electrons present in the metals absorb energy and get excited to higher energy levels. When these electrons come back to original energy level, they emit electromagnetic radiations due to which metals have shiny appearance and thus possess luster.

3. Why are metals generally ductile and malleable?

Ans:- Atoms of metals have loosely bound electrons and thus electrons in a metal move at random throughout the crystal. The positively charged kernels, formed by the separation of valence electrons, tend to repel each other, but are held together by mobile electron cloud. This force of attraction is known as metallic bond. Since the binding energy in metals is due to the metallic bond, the positive charged kernels in two adjacent planes can slide over each other without breaking the lattice. If the stress is applied beyond a certain limit, the positive charged kernels slide over one another and do not return to their original position. However, the metals do not break owing to metallic bond. That is why, metals are malleable and ductile

4. Define the term density. Name the metal which has the highest density.

Ans:- Density of a substance is defined as the mass of a unit volume of a substance. Iridium is the metal with the highest density[22.65 gm cm<sup>-3</sup>].

5. What is meant by hardness of a substance? Name some metals which are hard.

Ans:- Hardness of a substance is its ability to resist cutting, scratching and grinding. Iron, aluminium and lead are hard metals

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(Contd....)