

Chapter-8

Circulatory System and Excretory System

New words

1.Blood vessels	5.Urethra
2.Capillaries	6.Urinary bladder
3.Muscular organ	7.Ureters
4.Kidneys	8.Arteries

Define the following

- 1.Organ System – A group of some organs that work together to perform one or more body functions.**
- 2. Blood – It is a fluid that delivers necessary substances like oxygen and nutrients to other parts of the body.**
- 3. Blood vessels - Blood vessels are thin tubes that run through the entire body to transport blood.**

Answer the following questions

Q1. What do organ systems do for the body? Name any three organ systems of the human body.

Ans- Organ systems work together so that our body can function normally.

Three organ systems of the human body are: Circulatory system, excretory system, and skeletal system.

Q2. Differentiate between the role of excretory system and circulatory system in the body.

Ans-

Excretory system	Circulatory system
1.An organ system that helps in getting rid of wastes formed inside our body is called the excretory system.	1. An organ system that helps to transport substances inside our body is called the circulatory system.
2.This system consists of a pair of kidneys, a urinary bladder, a pair of tubes called ureters, and a urethra.	2.This system consists of heart, blood, and blood vessels.

Q3. Name the different things that blood helps to transport within the body.

Ans- Blood helps to transport nutrients, water, oxygen, carbon dioxide, and waste products.

Q4. What are the three types of blood vessels?

Ans- The three types of blood vessels are: arteries, veins, and capillaries.

Q5. Define excretion. Name any three parts of the excretory system.

Ans- The process by which wastes are removed from our body is called excretion.

The three parts of the excretory system are – Urinary bladder, ureters, kidneys, and urethra.

Q6. Describe the excretory system in brief.

Ans-1) The excretory system is an organ system that helps in getting rid of wastes formed inside our body.

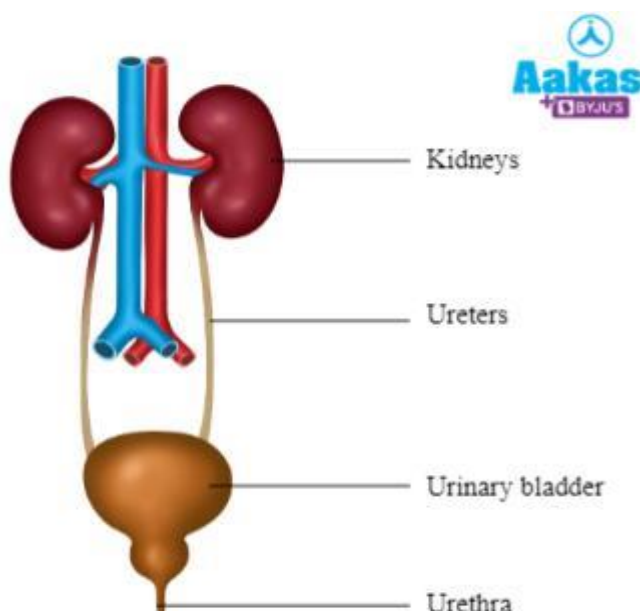
2) The excretory system consists of – kidneys, urinary bladder, ureters, and urethra.

3) The formation of urine takes place inside the kidneys.

4) Ureters carry urine from the kidneys to the urinary bladder.

5) The urine is stored in the urinary bladder.

6) The urethra helps to pass the urine out of the body.



Text book exercise

LET'S UNDERSTAND

I. Objective type questions

A. Fill in the blanks with the correct words.

1. **Organ systems** (Organisms/Organ systems) work together so that our body can function normally.
2. The **circulatory** (circulatory/excretory) system helps to transport substances within the body.
3. **Blood** (Heart/Blood) is a fluid that is carried by blood vessels to all parts of the body.
4. The **excretory** (circulatory/excretory) system is an organ system that helps in getting rid of wastes formed inside our body.
5. The formation of urine takes place in the **kidneys** (heart/kidneys).

B. Match the following.

Column A	Ans.	Column B
1. Circulatory system	1. c	a.Pumping organ
2. Excretory system	2. d.	b.blood vessels
3. Arteries and veins	3. b.	c.transport of substance
4. Kidneys	4. e.	d.removal of wastes
5. Heart	5. a	e. Urine formation

C. Choose the correct option.

1. Which of these are transported by blood?

- a. Nutrients.
- b. Water
- c. Oxygen and carbon dioxide.
- d. **All of these✓**

2. Which of these are called blood vessels?

- a. Ureters and kidneys.
- b. Heart and blood
- c. **Arteries and veins✓**
- d. Urethra and bladder

3. Which of these helps in getting rid of wastes from the body?

- a. Digestive system
- b. Circulatory system
- c. **Excretory system✓**
- d. None of these

4. Which of these is NOT a part of the excretory system?

- a. Urinary bladder and kidneys.
- b. Urethra and urinary bladder
- c. Urine and ureters
- d. **Heart and blood vessels ✓**

5. Which of these organs store urine?

- a. Ureter.
- b. **Urinary bladder✓**
- c. Kidneys
- d. Urethra

6. Which of these is NOT a part of the circulatory system?

- a. Heart.
- b. Blood
- c. Blood vessels.
- d. **Kidneys✓**

7. Where does urine get formed?

- a. **Kidneys✓**
- b. Urinary bladder
- c. Heart.
- d. Blood vessels

8. Which of these is a process by which wastes are removed by the body?

- a. Circulation.
- b. Skeleton
- c. Excretion ✓
- d. None of these

II. Very Short Answer Type Questions

A. Give two examples for each of the following.

- 1. Organ systems of the body: Circulatory system, Excretory system
- 2. Organs of the circulatory system: Heart, Blood vessels
- 3. Substances that get transported within the system: Water, Oxygen
- 4. Blood vessels: Veins, Arteries
- 5. Organs of the excretory system: Kidneys, Ureters

LET'S RECALL

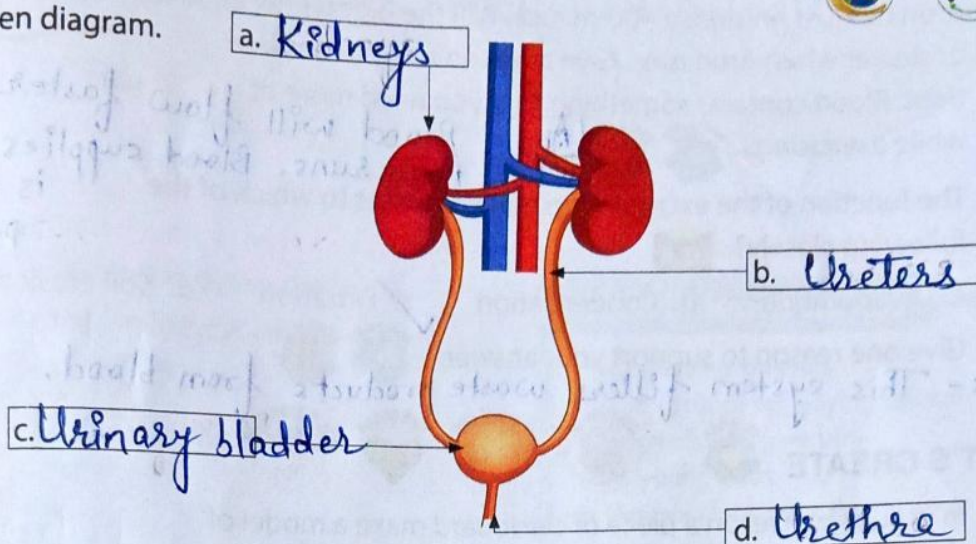
Recall and complete the concept map given below.

Circulatory system	Excretory system
Organs present in this system are: Heart Blood Blood Vessels	Organs present in this system are: Kidneys Ureters Urinary bladder Urethra

LET'S OBSERVE



1. Label the given diagram.



2. Name the fluid that the nurse is taking for testing? Blood
(Blood/Urine)

Which organ system does this fluid belong to? Circulatory



LET'S CONNECT



Underline the verbs and circle the adjectives in each of the following

1. The heart is a muscular organ that pumps blood to all parts of the body.
2. The blood is a fluid that helps to transport substances within the body.
3. Blood vessels are thin tubes that carry blood.
4. Urine carries harmful wastes from the body.
5. Urine is pale yellow in colour and is stored in the urinary bladder.

LET'S APPLY



You may have seen a blood sample being taken from a sick person. How do blood samples help doctors in finding out which disease a person is suffering from? **LO 1**

(Hint: What transports various things inside the body?)

Ans - Germs are also transported through blood. So the blood samples help doctors in finding out diseases.

LET'S ANALYSE AND EVALUATE



1. Arun has just finished a 400-m race. Will the blood flow be faster or slower when Arun runs. Give a reason for your answer.

(Hint: Blood contains something that you need more of while exercising.)



Ans- Blood will flow faster when Arun runs.

2. The function of the excretory system correlates to which of the following closely? **LO 6**

a. Evaporation

b. Condensation

c. Filtration

d. Soil erosion

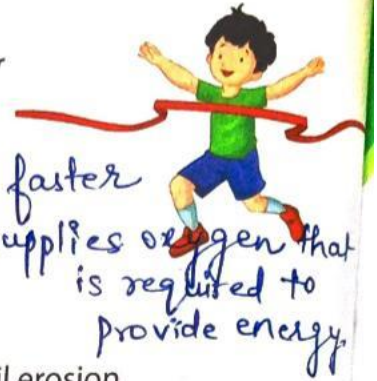
Give one reason to support your answer.

Ans- This system filters waste products from blood.

LET'S CREATE



1. To create a model of the excretory system on a piece of cardboard make a model of



Blood supplies oxygen that is required to provide energy.

Let's Remember

Identify and name the following.

1. Organ system that helps to transport substances
2. Organ system that helps to remove wastes formed inside the body
3. A muscular organ that pumps blood to all parts of the body
4. A fluid that forms a medium to transport substances
5. Thin tubes that run through the entire body to transport blood

Circulatory system

Excretory system

Heart

Blood

Blood Vessels