5. OUR BODY-ORGAN SYSTEM (KEY)

TEACHING TASK

CONCEPTUAL UNDERSTANDING QUESTIONS (CUQ's)

Multiple Choice Questions

1. c) chopping and cutting food.
Incisors are the front teeth that are sharp and designed for biting into food.

2. a) crushing and grinding food.
They have a broader surface that helps in breaking down food into smaller pieces.

3. b) Canines
The sharpest teeth in the mouth that are used for tearing food are b) Canines.

4. b) softening and lubricating food.
Saliva also contains enzymes that begin the breakdown of carbohydrates, but its primary role is to aid in swallowing and making food easier to chew.

5. b) Stomach
The organ that holds food for about 3-4 hours and mixes it with digestive juices is the b) Stomach.

6. a) absorbing nutrients.
It is where most of the digestion and absorption of nutrients takes place.

7. c) Large intestine.
After the small intestine, undigested food passes to the c) Large intestine.

8. a) absorbing water and salt.
It also plays a role in d) storing waste temporarily before it is expelled from the body.

ADVANCED LEVEL

More than One Answer Type

9. a) Incisors are used for chopping and cutting food, b) Canines are used for tearing food, c) Premolars are used for crushing and grinding food.
The statement d) Molars usually develop at the age of 6-7 years is not entirely accurate, as the first molars typically come in around that age, but molars continue to develop later.

10. a) Helping in speaking – Saliva aids in the articulation of words, b) Mixing with food to form a smooth paste – It lubricates food, making it easier to swallow, c) Breaking down food into smaller particles – Saliva contains enzymes that begin the digestion of carbohydrates.
The statement d) Carrying digested food to other parts of the body is not a function of saliva; that process occurs in the intestines after swallowing.

11. a) Mixing food with digestive juices, b) Absorbing nutrients, c) Breaking down food into small particles.
The statement d) Carrying digested food to different parts of the body is not a primary role of the small intestine; it primarily focuses on digestion and absorption, while the bloodstream carries nutrients to other parts of the body.

12. a) Small intestine, b) Large intestine.
The small intestine absorbs some water and nutrients, while the large intestine primarily focuses on absorbing water and salts from the remaining undigested food. The stomach and food pipe (esophagus) are not involved in this absorption.

Fill In the Blanks

13. crushing and grinding
14. The stomach

Matching Type

15.

1. Incisors - C. Helps in chopping and cutting food.
2. Canines - D. Used for tearing food.

3. Premolars - A. Responsible for crushing and grinding food.

4. Molars - B. Chews and grinds the food into smaller pieces.

Answer the Following Questions

16. The functions of incisors, canines, premolars, and molars differ as follows:

1. Incisors:

- Function: Chopping and cutting food.

- Shape: Sharp and flat edges, ideal for biting into food.

2. Canines:

- Function: Tearing food.

- Shape: Pointed and conical, designed for gripping and tearing, especially meat.

3. Premolars:

- Function: Crushing and grinding food.

- Shape: Flat surfaces with ridges, suited for mashing and breaking down food into smaller pieces.

4. Molars:

- Function: Chewing and grinding food.

- Shape: Larger and stronger than other teeth, with broad surfaces, designed for thorough grinding and processing of food.

Together, these teeth work in harmony to efficiently break down food into a form suitable for swallowing and digestion.

17. The path of food from the mouth to the large intestine involves several major organs and processes:

1. Mouth:

- Process: Food enters the mouth, where it is mechanically broken down by the teeth (incisors, canines, premolars, and molars) and mixed with saliva. Saliva contains enzymes that begin the digestion of carbohydrates.

2. Esophagus:

- Process: After chewing, the food is formed into a bolus and swallowed. It passes through the esophagus, a muscular tube that uses rhythmic contractions (peristalsis) to move the food to the stomach.

3. Stomach:

- Process: The food enters the stomach, where it is mixed with gastric juices, including hydrochloric acid and digestive enzymes. This acidic environment further breaks down food, turning it into a semi-liquid substance called chyme. The stomach holds food for about 3-4 hours.

4. Small Intestine:

- Process: Chyme moves into the small intestine, which is divided into three parts: the duodenum, jejunum, and ileum. Here, it is mixed with bile (from the liver) and pancreatic juices, which aid in the digestion of fats, carbohydrates, and proteins. The walls of the small intestine absorb nutrients and water into the bloodstream.

5. Large Intestine:

- Process: Undigested food and waste products then enter the large intestine (colon). The primary function here is to absorb remaining water and salts from the waste material. It also stores the waste until it is excreted.

Throughout this journey, food is transformed from solid pieces into a form that the body can use for energy, growth, and repair.

LEARNERS TASK

CONCEPTUAL UNDERSTANDING QUESTIONS (CUQ's)

Multiple Choice Questions

1. c) Four
types of permanent teeth in the human jaw: Incisors, Canines, Premolars, Molars.

2. a) 6-7 years
for the first molars (often referred to as the "six-year molars"). Additional

molars, including the second molars, typically come in around 11-13

years.

3. c) Five types
of taste buds, corresponding to the basic tastes: sweet, sour, salty, bitter, and umami. However, the total number of taste buds can vary, with an average adult having around 2,000 to 8,000 taste buds.

4. c) It turns food into a smooth paste.
Saliva helps to moisten food, making it easier to chew and swallow.

5. a) Stomach.
However, it's important to note that mechanical digestion and the initial breakdown of carbohydrates start in the mouth with the help of saliva. But if considering the primary organ where digestion continues, it would be the stomach.

6. b) muscular contractions.
These contractions, known as peristalsis, help propel the food toward the stomach.

7. c) 20 feet.
The approximate length of the small intestine is c) 20 feet.

8. c) through the anus as faeces.
Waste is eliminated from the body c) through the anus as faeces.

ADVANCED LEVEL

More than One Answer Type

9. b) Mixing food with saliva, c) Tasting different types of food, d) Swallowing the food.
While a) Speaking is also a function of the tongue, it is not directly related to digestion.

10. a) Mouth (through chewing and mixing with saliva), b) Stomach (through churning and mixing with digestive juices), c) Small intestine (through mixing with bile and pancreatic juices).
The d) Large intestine primarily focuses on absorbing water and salts, rather than breaking down food.

11. a) Softening food, d) Initiating chemical digestion.
Saliva helps moisten and soften food for easier swallowing and contains enzymes that begin the digestion of carbohydrates. It does not directly absorb nutrients (b) or chew food (c).

12. a) Mixing food with digestive juices, b) Holding food temporarily, c) Turning food into a smooth paste.
The stomach does not primarily absorb nutrients (d); most nutrient absorption occurs in the small intestine.

Fill In the Blanks
13. umami.
14. large intestine

Matching Type
15.

1. Saliva - B. Secreted by salivary glands to soften and chew food.
2. Food Pipe - A. A long tube connected to the stomach.
3. Stomach - D. Holds food for digestion and mixing with digestive juices.
4. Small Intestine - C. Absorbs nutrients from digested food.

Answer the Following Questions
16. Saliva contributes to the digestion of food in several ways:

1. Moistening Food: Saliva lubricates food, making it easier to chew and swallow. This helps form a smooth bolus that can be easily pushed down the esophagus.

2. Chemical Digestion: Saliva contains enzymes, primarily amylase, which begin the breakdown of carbohydrates into simpler sugars. This initiates the digestive process even before the food reaches the stomach.

3. Taste Enhancement: Saliva helps dissolve food particles, allowing taste buds to detect different flavors. This enhances the tasting experience and stimulates appetite.

4. Antibacterial Properties: Saliva contains substances like lysozyme that help kill bacteria, contributing to oral health and preventing infection.
5. Buffering Acids: Saliva helps neutralize acids in the mouth, maintaining a balanced pH and protecting tooth enamel from decay.

Overall, saliva plays a crucial role in both the mechanical and chemical aspects of digestion in the mouth.

17. The stomach contributes to the digestion of food in several ways:

1. Mechanical Digestion: The stomach's muscular walls contract and relax to churn and mix food with digestive juices, breaking it down into smaller particles and forming a semi-liquid mixture called chyme.

2. Chemical Digestion: The stomach secretes gastric juices, which contain hydrochloric acid and digestive enzymes (such as pepsin). These substances help break down proteins and activate enzymes, further digesting the food.

3. Acidic Environment: The high acidity in the stomach not only aids in digestion but also helps kill harmful bacteria and pathogens that may be present in the food.

4. Temporary Storage: The stomach acts as a temporary storage facility for food, allowing for gradual release into the small intestine for further digestion and nutrient absorption.

Typically, food remains in the stomach for about 3 to 4 hours, although this can vary depending on the type and amount of food consumed. Solid foods may take longer to digest compared to liquids.

RESPIRATORY SYSTEM (KEY)

TEACHING TASK

CONCEPTUAL UNDERSTANDING QUESTIONS (CUQ's)

Multiple Choice Questions

1. C) Exchange oxygen and carbon dioxide.

2. A) Cartilage rings.
These rings provide support and keep the trachea open, preventing it from collapsing.

3. C) Diaphragm.
The muscle that helps with breathing by moving up and down is the C) Diaphragm.

4. A) Oxygen is released into the bloodstream, B) Carbon dioxide is released into the air“Oxygen moves from the alveoli into the bloodstream, while carbon dioxide moves from the blood into the alveoli to be exhaled.

5. A) it contracts and moves down during inhalation.
This creates a vacuum that allows air to be drawn into the lungs.

6. B) Carbon dioxide is expelled from the body.
While some water vapor is also released, the primary gas expelled is carbon dioxide.

ADVANCED LEVEL

More than One Answer Type

7. A) It is made of cartilage rings for strength and flexibility, C) It helps the air move smoothly into the lungs.
Statement B) It branches into bronchioles inside the lungs is partially accurate; the trachea branches into bronchi, which then further divide into bronchioles.
Statement D) It is a muscular organ responsible for gas exchange is incorrect; the trachea itself is not muscular and does not participate in gas exchange. Gas exchange occurs in the alveoli.

8. B) Carbon dioxide is expelled from the body, C) The diaphragm relaxes and moves up.
Exhalation involves the diaphragm relaxing, which decreases the volume of the thoracic cavity, resulting in air being pushed out of the lungs.
Statements A and D are related to inhalation rather than exhalation.

Fill In the Blanks

9. alveoli
10. capillaries.

Matching Type

11.

1. Alveoli - C. Tiny air sacs in the lungs where oxygen and carbon dioxide are exchanged.

2. Capillaries - B. Tiny blood vessels where the exchange of gases occurs.

3. Oxygen - D. The gas that is taken in from the air and passes into the bloodstream.

4. Carbon dioxide - A. The gas that is expelled from the bloodstream into the alveoli.

Answer the Following Questions

12. The trachea is also known as the *windpipe*. Its primary function is to provide a clear airway for air to enter and exit the lungs. It connects the larynx (voice box) to the bronchi, allowing for the passage of air while also serving as a protective structure with cartilage rings that keep it open and prevent collapse. Additionally, the trachea is lined with cilia and mucus to help trap and expel debris and pathogens from the air.

13. The process of gas exchange in the alveoli occurs through the following steps:

1. Inhalation: When you breathe in, air fills the alveoli, which are tiny air sacs in the lungs. The air is rich in oxygen.

2. Oxygen Diffusion: The walls of the alveoli are very thin and surrounded by tiny blood vessels called capillaries. Oxygen from the inhaled air diffuses across the alveolar walls into the capillaries due to the concentration gradient (higher concentration of oxygen in the alveoli than in the blood).

3. Carbon Dioxide Diffusion: At the same time, carbon dioxide, which is a waste product of metabolism present in the blood (higher concentration in the blood than in the alveoli), diffuses from the capillaries into the alveoli.

4. Transport in Blood: Once oxygen enters the capillaries, it binds to hemoglobin molecules in red blood cells and is transported to the body's tissues.

5. Exhalation: The carbon dioxide that has entered the alveoli is then expelled from the lungs when you breathe out, completing the gas exchange process.

This efficient exchange of gases is crucial for supplying oxygen to the body and removing carbon dioxide, helping maintain proper respiratory

function.

14. Capillaries are the smallest blood vessels in the body, connecting arterioles (small arteries) and venules (small veins). They have thin walls, typically just one cell thick, which facilitates the exchange of substances between the blood and surrounding tissues.

Role in Gas Exchange:

1. Location: Capillaries are found throughout the body, including around the alveoli in the lungs.

2. Gas Diffusion: In the lungs, capillaries surround the alveoli, where gas exchange occurs. Oxygen from the inhaled air diffuses through the thin walls of the alveoli into the capillaries, where it binds to hemoglobin in red blood cells.

3. Carbon Dioxide Removal: At the same time, carbon dioxide, which is a waste product from cellular metabolism, diffuses from the blood in the capillaries into the alveoli. This occurs because the concentration of carbon dioxide is higher in the blood than in the alveoli.

4. Nutrient and Waste Exchange: Beyond gas exchange, capillaries also facilitate the transfer of nutrients and waste products between blood and tissues, helping maintain homeostasis in the body.

Overall, capillaries are essential for effective gas exchange, nutrient delivery, and waste removal, playing a critical role in overall circulatory and respiratory functions.

LEARNERS TASK

CONCEPTUAL UNDERSTANDING QUESTIONS (CUQ's)

Multiple Choice Questions

1. D) Facilitate gas exchange for cellular respiration. This involves exchanging oxygen and carbon dioxide between the air and the bloodstream.

2. B) Nose and Mouth.

3. C) Windpipe.

4. C) Chest
The chest is specifically designed to house the lungs and the heart, allowing for efficient breathing and circulation. In contrast, the abdomen contains organs related to digestion, the head houses the brain and sensory organs, and the limbs contain muscles and bones for movement.

5. C) Alveoli.
Alveoli are the tiny air sacs in the lungs where gas exchange occurs. They are surrounded by capillaries and allow oxygen to enter the blood and carbon dioxide to be expelled.

6. B) They expand.
When you breathe in (inhalation), the diaphragm and intercostal muscles contract, increasing the volume of the thoracic cavity.

ADVANCED LEVEL

More than One Answer Type
7. C) Bronchi: While they are primarily air passageways, they lead to the bronchioles and alveoli, where gas exchange occurs, D) Capillaries: These are crucial for the actual exchange of gases, as they surround the alveoli and facilitate the transfer of oxygen and carbon dioxide.
The nose and mouth are involved in air intake but do not participate in gas exchange. So, the correct answers for gas exchange would be C) Bronchi and D) Capillaries.

8. A) Contracting and moving down during inhalation, C) Creating more space in the chest for lung expansion.
A) When the diaphragm contracts, it moves downwards, increasing the volume of the thoracic cavity and allowing air to flow into the lungs during inhalation.
C) By contracting and moving down, the diaphragm creates more space in the chest, which facilitates lung expansion and helps draw air into the lungs.

Fill In the Blanks
9. diaphragm.

10. windpipe

Matching Type
11.

1. Nose and Mouth - C. Entry points for air into the respiratory system.

2. Trachea (Windpipe) - D. Tube made of cartilage rings, through which air travels.

3. Lungs - A. Organs filled with air sacs called alveoli.

4. Diaphragm - B. Big muscle under the lungs that contracts and relaxes to help breathing.

Answer the Following Questions
12. The main function of the respiratory system is to facilitate the exchange of gases between the body and the environment. This includes:

1. Inhaling Oxygen: Bringing oxygen into the lungs, where it can be transferred to the bloodstream.

2. Exhaling Carbon Dioxide: Removing carbon dioxide, a waste product of metabolism, from the bloodstream to be expelled from the body.

This gas exchange is crucial for maintaining the body's metabolic processes and overall homeostasis.

13. When you breathe in (inhale), the diaphragm contracts and moves downward. This action increases the volume of the thoracic cavity, creating a negative pressure that allows air to flow into the lungs. As the diaphragm moves down, the lungs expand to fill the space, facilitating the intake of oxygen.

14. After carbon dioxide is released from the capillaries, it enters the alveoli in the lungs. From there, it is expelled from the body during exhalation. The process can be summarized as follows:

1. Diffusion: Carbon dioxide diffuses from the blood in the capillaries into the alveoli, where the concentration of carbon dioxide is lower.

2. Exhalation: During exhalation, the diaphragm and intercostal muscles relax, decreasing the volume of the thoracic cavity. This creates pressure that pushes the carbon dioxide-rich air out of the lungs and into the environment.

This process helps maintain the body's acid-base balance and remove waste products from cellular metabolism.

EXCRETORY SYSTEM (KEY)

TEACHING TASK

CONCEPTUAL UNDERSTANDING QUESTIONS (CUQ's)

Multiple Choice Questions

1. b) To remove waste and extra water from your body.
The main job of the excretory system (also known as the urinary system) is to filter blood and remove waste products and excess water, which are excreted as urine. This helps maintain the body's fluid balance and electrolyte levels, as well as eliminate toxins and metabolic waste. The other options pertain to different bodily functions: breathing, circulation, and digestion.

2. b) Lungs.
The lungs are primarily part of the respiratory system, responsible for gas exchange (oxygen and carbon dioxide). The other options—kidneys, bladder, and urethra—are all integral parts of the excretory system, which is involved in removing waste and excess water from the body.

3. c) To store urine until you're ready to go to the bathroom.
The bladder's main function is to temporarily store urine produced by the kidneys until it is excreted from the body. The other options refer to different functions: filtering blood is done by the kidneys, carrying urine out of the body is the role of the urethra, and urine production also occurs in the kidneys.

4. c) Down the ureters to the bladder.
After urine is produced in the kidneys, it travels down the ureters, which are tubes that connect the kidneys to the bladder, where it is stored until it is ready to be excreted from the body. The other options do not accurately describe the path of urine after it leaves the kidneys.

5. d) Through the urethra.
Urine leaves the body through the urethra, which is the tube that con-

nects the bladder to the outside of the body. The kidneys produce urine, which then travels to the bladder via the ureters, but the actual exit from the body occurs through the urethra.

6. b) Drink plenty of water.
Drinking plenty of water helps your excretory system function properly by keeping you hydrated and aiding in the dilution and elimination of waste products through urine. Holding your urine for a long time can strain the bladder, while eating lots of candy may lead to excess sugar and unhealthy waste. Sleeping all day does not contribute to the health of your excretory system.

ADVANCED LEVEL

More than One Answer Type
7. a) The kidneys filter out the waste from the blood, b) Urine is produced from the filtered waste and extra water.
During the blood filtration process in the kidneys, waste products and excess water are removed from the blood, resulting in the formation of urine. The filtered blood returns to circulation, while urine is not stored directly in the urethra; it is stored in the bladder before being excreted through the urethra. Therefore, options c and d are not correct.

8. a) Removes waste from your body, c) Removes extra water from your body.
The excretory system plays a crucial role in maintaining the body's cleanliness and balance by removing waste products and excess water, helping to regulate fluid and electrolyte levels. Options b (circulating oxygen) and d (producing energy) pertain to the respiratory and metabolic systems, respectively, and are not functions of the excretory system.

Fill In the Blanks
9. ureters
10. bladder

Matching Type
11. 1. Blood Filtration - C. Your blood travels through your kidneys, which filter out the waste and extra water.

2. Urine Transport - A. Flows down the ureters to the bladder.

3. Storage - D. Bladder holds the urine until it's full.

4. Elimination - B. Urine leaves the bladder through the urethra.

Answer the Following Questions

12. The kidneys play a crucial role in the excretory system by:

1. Filtering Blood: They remove waste products, toxins, and excess substances (like salts and water) from the bloodstream.

2. Regulating Fluid Balance: The kidneys help maintain the body's fluid balance by adjusting the amount of water excreted in urine.

3. Electrolyte Balance: They regulate levels of electrolytes such as sodium, potassium, and calcium, which are essential for various bodily functions.

4. Acid-Base Balance: The kidneys help maintain the body's pH balance by excreting hydrogen ions and reabsorbing bicarbonate from urine.

5. Producing Urine: After filtering, the kidneys produce urine, which is composed of waste and excess substances that need to be eliminated from the body.

Overall, the kidneys are vital for detoxifying the blood, regulating homeostasis, and ensuring that waste products are effectively removed from the body.

13. The ureters, bladder, and urethra work together in the process of urine elimination as follows:

1. Ureters

- Function: The ureters are thin tubes that carry urine from the kidneys to the bladder. They use rhythmic muscle contractions (peristalsis) to move urine downwards efficiently.

2. Bladder

- Function: The bladder is a balloon-like organ that stores urine until it is full. It can expand to hold a significant amount of urine and contains muscle layers that help control urination. When the bladder reaches a certain level of fullness, nerve signals indicate that it's time to empty.

3. Urethra

- Function: The urethra is the tube through which urine exits the body from the bladder. It carries urine to the external environment during urination. In males, the urethra also carries semen, while in females, it serves solely for urine elimination.

Together, these structures ensure that urine is transported from the kidneys, stored, and finally expelled from the body in a controlled manner.

LEARNERS TASK

CONCEPTUAL UNDERSTANDING QUESTIONS (CUQ's)

Multiple Choice Questions

1. c) Bean-shaped.
The kidneys have a distinct bean shape, which is often described as kidney-shaped. This shape helps them fit into the space in the lower back area of the body.

2. b) Remove waste and extra water from the blood.
The primary function of the kidneys is to filter the blood, removing waste products and excess water to form urine. The other options refer to functions of the bladder (storing urine), ureters (transporting urine to the bladder), and urethra (carrying urine out of the body), but are not functions of the kidneys themselves.

3. b) It helps keep your body clean and balanced.
The excretory system is important because it removes waste products and excess substances from the body, helping to maintain fluid balance and electrolyte levels, and ensuring that toxins are eliminated. The other options refer to functions of the respiratory system (breathing), digestive system (digesting food), and circulatory system (pumping blood), but not the excretory system.

4. c) Blood filtration.
The first step in the process of how the excretory system works is blood filtration, which occurs in the kidneys. During this step, waste products and excess substances are removed from the blood to form urine. The

subsequent steps involve transporting the urine, storing it, and eventually eliminating it from the body.

5. d) Every 5 minutes.
The kidneys filter all the blood in your body approximately every 5 minutes. This constant filtration process helps maintain homeostasis by regulating fluid balance, electrolytes, and waste removal.

6. b) You feel the need to go to the bathroom.
When the bladder is full, stretch receptors in the bladder wall send signals to the brain, indicating the need to urinate. This sensation prompts the urge to go to the bathroom. The other options are incorrect: the kidneys continue to function, urine does not go back to the kidneys, and the bladder does not produce urine; rather, it stores urine until it is excreted.

ADVANCED LEVEL

More than One Answer Type
7. a) Kidneys, c) Ureters, d) Bladder.
The main parts of the excretory system include the kidneys, which filter blood and produce urine; the ureters, which transport urine from the kidneys to the bladder; and the bladder, which stores urine until it is eliminated. The heart is part of the circulatory system, not the excretory system.

8. a) Drinking plenty of water, c) Eating a balanced diet.
Drinking plenty of water helps maintain hydration and supports the kidneys in filtering waste efficiently. Eating a balanced diet provides essential nutrients that promote overall health, including the health of the excretory system.
On the other hand, b) Holding your urine for a long time can strain the bladder, and d) Skipping meals may lead to nutritional deficiencies, both of which can negatively affect the excretory system.

Fill In the Blanks
9. The excretory system
10. kidneys

Matching Type

11.

1. Kidneys - B. Bean-shaped organs that filter waste and extra water from the blood.

2. Ureters - A. Thin tubes that carry urine from the kidneys to the bladder.

3. Bladder - D. Balloon-like organ that stores urine until you're ready to go to the bathroom.

4. Urethra - C. Tube that carries urine from the bladder out of the body when you pee.

Answer the Following Questions

12. The main function of the excretory system is to *remove waste products and excess substances from the body*. This includes filtering blood to eliminate toxins, excess water, and metabolic waste, and producing urine for excretion. The excretory system helps maintain the body's fluid balance, electrolyte levels, and overall homeostasis.

13. The process of blood filtration in the kidneys involves several key steps:

1. Blood Flow to the Kidneys

Blood enters the kidneys through the renal arteries, which branch off from the abdominal aorta. Each kidney receives a substantial amount of blood for filtration.

2. Glomerulus

Inside the kidney, blood flows into a network of tiny capillaries called the *glomerulus*. Here, the blood pressure forces water, electrolytes, and small molecules (like glucose and urea) through the walls of the capillaries into the *Bowman's capsule*, a surrounding structure.

3. Filtration

The filtration process separates waste products and excess substances from the blood. Large molecules, such as proteins and blood cells, remain in the bloodstream, while smaller waste products pass into the nephron (the functional unit of the kidney).

4. Reabsorption and Secretion

As the filtrate moves through the nephron, essential substances (like water, glucose, and certain ions) are reabsorbed back into the bloodstream through surrounding capillaries. Additionally, some waste products are secreted into the filtrate from the blood, further refining the composition of urine.

5. Formation of Urine

After passing through the nephron, the remaining fluid (now called urine) collects in the *renal pelvis* and is transported down the *ureters* to the bladder.

Outcome

The outcome of blood filtration in the kidneys is the production of urine, which contains waste products and excess substances that the body needs to eliminate. This process helps maintain the body's internal environment by regulating fluid balance, electrolyte levels, and the removal of toxins, ultimately contributing to homeostasis.