## TEACHING TASK (Page 49 – 51)

**Multiple Choice Questions**

**1) What is the function of incisors in the mouth?**

**Answer: C) Chopping and cutting food Explanation:** Incisors are flat, sharp-edged teeth at the front of the mouth used for chopping and cutting food into smaller pieces.

**2) What is the primary function of premolars in the mouth?**

**Answer: A) Crushing and grinding food Explanation:** Premolars, located behind canines, have flat surfaces designed for crushing and grinding food to aid digestion.

**3) Which teeth are the sharpest in the mouth and are used for tearing food?**

**Answer: B) Canines Explanation:** Canines are pointed and sharp, ideal for tearing tough foods like meat.

**4) What is the function of saliva in the digestive process?**

**Answer: B) Softening and lubricating food Explanation:** Saliva moistens food, making it easier to swallow, and begins chemical digestion by breaking down starches with enzymes like amylase.

**5) Which organ holds food for about 3-4 hours and mixes it with digestive juices?**

**Answer: B) Stomach Explanation:** The stomach stores food temporarily, mixes it with gastric juices, and breaks it down into a semi-liquid form (chyme) over 3-4 hours.

**6) What is the main function of the small intestine in the digestive process?**

**Answer: A) Absorbing nutrients Explanation:** The small intestine is the primary site for nutrient absorption, where digested food is absorbed into the bloodstream.

**7) Where does the undigested food pass after the small intestine?**

**Answer: C) Large intestine Explanation:** Undigested food moves from the small intestine to the large intestine, where water and salts are absorbed.

**8) What is the function of the large intestine in digestion?**

**Answer: A) Absorbing water and salt Explanation:** The large intestine absorbs water and salts from undigested food, forming solid waste (feces).

**Advanced Level**

**More than One Answer Type**

**9) Which of the following statements about teeth are true?**

**Answer: A, B, C**

**A) Incisors are used for chopping and cutting food.** (True, as incisors cut food into smaller pieces.)

**B) Canines are used for tearing food.** (True, as canines are sharp and suited for tearing.)

**C) Premolars are used for crushing and grinding food.** (True, as premolars crush and grind food.)

**D) Molars usually develop at the age of 6-7 years.** (False, as the first permanent molars typically erupt around 6-7 years, but others develop later, around 12-13 years or beyond.)

**10) What are the functions of saliva in the mouth?**

**Answer: A, B, D**

**A) Helping in speaking.** (True, saliva lubricates the mouth, aiding speech.)

**B) Mixing with food to form a smooth paste.** (True, saliva softens food into a bolus for swallowing.)

**C) Breaking down food into smaller particles.** (False, mechanical breakdown is done by teeth, not saliva.)

**D) Carrying digested food to other parts of the body.** (True, indirectly, as saliva aids in forming the bolus that moves to the stomach for further digestion.)

**11) What are the roles of the small intestine in digestion and nutrient absorption?**

**Answer: A, B, C**

**A) Mixing food with digestive juices.** (True, the small intestine mixes food with bile and pancreatic juices.)

**B) Absorbing nutrients.** (True, the primary role of the small intestine.)

**C) Breaking down food into small particles.** (True, enzymes in the small intestine further break down food.)

**D) Carrying digested food to different parts of the body.** (False, this is the role of the bloodstream, not the small intestine itself.)

**12) Which organs are involved in absorbing water and salts from undigested food?**

**Answer: B) Large intestine**

**A) Small intestine.** (False, it primarily absorbs nutrients, not water and salts.)

**B) Large intestine.** (True, it absorbs water and salts from undigested food.)

**C) Stomach.** (False, the stomach mixes food with digestive juices.)

**D) Food pipe.** (False, the esophagus transports food, not absorbs water.)

**Fill In the Blanks**

**13) Premolars are shaped differently by both the incisors and canines and are responsible for _____ food.**

**Answer: Crushing and grinding Explanation:** Premolars have flat surfaces suited for crushing and grinding food.

**14) _____ holds the food for about 3-4 hours and mixes it with digestive juices.**

**Answer: Stomach Explanation:** The stomach temporarily stores food, mixing it with gastric juices for 3-4 hours.

**Matching Type**

**15) Answer:** Here's the correct matching of the components of the digestive system (teeth types) with their functions:

**1.Incisors → C. Helps in chopping and cutting food**

**2.Canines → D. Used for tearing food**

**3.Premolars → B. Chews and grinds the food into smaller pieces**

**4.Molars → A. Responsible for crushing and grinding food**

**Answer the Following Questions**

**16) How do the functions of incisors, canines, premolars, and molars differ in terms of chewing and processing food?**

**Answer:**

**Incisors:** These are flat, sharp-edged teeth at the front of the mouth, used for chopping and cutting food into smaller, bite-sized pieces (e.g., biting into an apple).

**Canines:** Pointed and sharp, canines are designed for tearing tough foods, such as meat, by piercing and ripping.

**Premolars:** Located behind canines, premolars have flat surfaces for crushing and grinding food into smaller pieces, aiding in digestion.

**Molars:** Found at the back of the mouth, molars have broad, flat surfaces for thoroughly grinding food into a paste, making it easier to digest. Each type of tooth has a specialized role, contributing to the mechanical breakdown of food in the mouth.

**17) Trace the path of food from the mouth to the large intestine, describing the major organs and processes involved in digestion along the way.**

**Answer:**

**Mouth:** Digestion begins here. Teeth (incisors, canines, premolars, molars) mechanically break down food, while saliva, secreted by salivary glands, softens food and initiates chemical digestion of starches via amylase. The food is formed into a bolus.

**Esophagus (Food pipe):** The bolus is swallowed and moves down the esophagus via peristalsis (muscular contractions) to the stomach.

**Stomach:** The stomach holds food for 3-4 hours, mixing it with gastric juices (containing hydrochloric acid and pepsin) to break it down into chyme, a semi-liquid form. Protein digestion begins here.

**Small Intestine:** Chyme enters the small intestine, where most digestion and nutrient absorption occur. Pancreatic juices and bile (from the liver and gallbladder) further break down carbohydrates, proteins, and fats. Nutrients are absorbed into the bloodstream through the intestinal walls.

**Large Intestine:** Undigested food passes into the large intestine, where water and salts are absorbed, forming solid feces. The feces are stored in the rectum until elimination.

## LEARNER'S TASK (Page 51 – 52)

**Multiple Choice Questions**

**1) How many types of permanent teeth are there in the human jaw?**

**Answer: C) Four Explanation:** The four types of permanent teeth are incisors, canines, premolars, and molars.

**2) At what age do molars usually develop?**

**Answer: A) 6-7 years Explanation:** The first permanent molars typically erupt around 6-7 years, with additional molars (second and third, or wisdom teeth) appearing later.

**3) How many taste buds does the human tongue typically have?**

**Answer: C) Five Explanation:** The tongue detects five basic tastes: sweet, sour, salty, bitter, and umami.

**4) Which statement about saliva is true?**

**Answer: C) It turns food into a smooth paste. Explanation:** Saliva softens food, forming a bolus (smooth paste) for easier swallowing and initiates starch digestion.

**5) Where does the process of digestion begin?**

**Answer: C) Mouth Explanation:** Digestion starts in the mouth with mechanical chewing and chemical digestion by saliva.

**6) What causes movement of food down the esophagus?**

**Answer: B) Muscular contractions Explanation:** Peristalsis, a series of muscular contractions, moves food down the esophagus.

**7) What is the approximate length of the small intestine?**

**Answer: C) 20 feet Explanation:** The small intestine is approximately 20 feet long in adults, providing a large surface area for nutrient absorption.

**8) How is waste eliminated from the body?**

**Answer: C) Through the anus as faeces Explanation:** Undigested food, formed into feces, is eliminated through the anus.

**Advanced Level**

**More than One Answer Type**

**9) What are the functions of the tongue in the digestive process?**

**Answer: B, C, D**

**A) Speaking.** (False, speaking is not directly part of digestion.)

**B) Mixing food with saliva.** (True, the tongue moves food to mix with saliva.)

**C) Tasting different types of food.** (True, the tongue's taste buds detect flavors.)

**D) Swallowing the food.** (True, the tongue pushes the bolus to the throat for swallowing.)

**10) Which parts of the digestive system are involved in breaking down food into smaller particles?**

**Answer: A, B, C**

**A) Mouth.** (True, teeth and saliva begin mechanical and chemical breakdown.)

**B) Stomach.** (True, gastric juices and churning break food into chyme.)

**C) Small intestine.** (True, enzymes further break down food.)

**D) Large intestine.** (False, it primarily absorbs water, not breaks down food.)

**11) Which of the following are functions of saliva in the digestive process?**

**Answer: A, D**

**A) Softening food.** (True, saliva moistens food for swallowing.)

**B) Absorbing nutrients.** (False, nutrient absorption occurs in the small intestine.)

**C) Chewing food properly.** (False, chewing is done by teeth.)

**D) Initiating chemical digestion.** (True, saliva contains amylase for starch digestion.)

**12) What are the functions of the stomach in the digestive process?**

**Answer: A, B, C**

**A) Mixing food with digestive juices.** (True, the stomach churns food with gastric juices.)

**B) Holding food temporarily.** (True, food stays for 3-4 hours.)

**C) Turning food into a smooth paste.** (True, food is converted to chyme.)

**D) Absorbing nutrients.** (False, nutrient absorption occurs mainly in the small intestine.)

**Fill In the Blanks**

**13) The tongue has five taste buds which help us to taste different types of food: sweet, sour, salty, bitter, and _____.**

**Answer: Umami Explanation:** The fifth taste detected by taste buds is umami, a savory flavor.

**14) The undigested food is passed to the _____ which is about 5 feet in length, where water and salt are absorbed.**

**Answer: Large intestine Explanation:** The large intestine, about 5 feet long, absorbs water and salts from undigested food.

**Matching Type**

**15) Answer:**

**1.Saliva — B. Secretes by salivary glands to soften and chew food.**

Saliva helps in the initial breakdown of food by moistening and softening it for easier chewing and swallowing.

**2.Food Pipe — A. A long tube connected to the stomach.**

The food pipe (also known as the esophagus) is a long tube that connects the mouth to the stomach, allowing food to pass through.

**3.Stomach — D. Holds food for digestion and mixing with digestive juices.**

The stomach holds the food temporarily while it gets mixed with digestive juices to break it down further.

**4.Small Intestine — C. Absorbs nutrients from digested food.**

The small intestine is where the majority of nutrient absorption takes place after digestion.

**Answer the Following Questions**

**16) How does saliva contribute to the digestion of food in the mouth, and what are its specific roles?**

**Answer:** Saliva, produced by salivary glands, plays several key roles in digestion:

**Softening and lubricating food:** Saliva moistens food, forming a bolus for easier swallowing.

**Initiating chemical digestion:** It contains the enzyme amylase, which begins breaking down starches into simpler sugars.

**Aiding swallowing:** By lubricating food, saliva helps the tongue push the bolus to the esophagus.

**Maintaining oral health:** Saliva neutralizes acids and protects teeth from decay.

**17) How does the stomach contribute to the digestion of food, and what is the duration food typically remains in the stomach?**

**Answer:** The stomach contributes to digestion by:

**Storing food temporarily:** It holds food for about 3-4 hours.

**Mixing food with digestive juices:** Gastric juices, containing hydrochloric acid and pepsin, break down proteins and kill bacteria.

**Churning food:** The stomach's muscular walls churn food into chyme, a semi-liquid paste.

**Regulating release:** The stomach slowly releases chyme into the small intestine for further digestion. **Duration:** Food typically remains in the stomach for 3-4 hours, depending on the meal's composition.

## TEACHING TASK (Page 54 -55)

### Multiple Choice Questions

**1) What is the function of the respiratory system?**

**Answer: C) Exchange oxygen and carbon dioxide Explanation:** The respiratory system facilitates the exchange of oxygen (for cellular respiration) and carbon dioxide (a waste product) between the body and the environment.

**2) What helps the air move smoothly down the trachea?**

**Answer: A) Cartilage rings Explanation:** Cartilage rings provide structural support to keep the trachea open, allowing smooth airflow.

**3) Which muscle helps with breathing by moving up and down?**

**Answer: C) Diaphragm Explanation:** The diaphragm, a dome-shaped muscle, contracts and moves down during inhalation and relaxes upward during exhalation.

**4) What occurs during the exchange of gases in the alveoli?**

**Answer: A) Oxygen is released into the bloodstream Explanation:** In the alveoli, oxygen from inhaled air diffuses into the bloodstream, while carbon dioxide moves from the blood into the alveoli to be exhaled.

**5) How does the diaphragm help with breathing?**

**Answer: A) It contracts and moves down during inhalation Explanation:** During inhalation, the diaphragm contracts, flattens, and moves downward, creating more space in the chest for the lungs to expand.

**6) What is expelled from the body during exhalation? Answer: B) Carbon dioxide Explanation:** Carbon dioxide, a waste product of cellular respiration, is expelled during exhalation.

**Advanced Level**

**More than One Answer Type**

**7) Which statements accurately describe the role of the trachea (windpipe) in the respiratory system?**

**Answer: A, C**

**A) It is made of cartilage rings for strength and flexibility.** (True, cartilage rings keep the trachea open.)

**B) It branches into bronchioles inside the lungs.** (False, the trachea branches into bronchi, not bronchioles.)

**C) It helps the air move smoothly into the lungs.** (True, its structure ensures smooth airflow.)

**D) It is a muscular organ responsible for gas exchange.** (False, gas exchange occurs in the alveoli, not the trachea.)

**8)What happens during exhalation in the respiratory system?**

**Answer: B, C**

**A) Oxygen is taken in from the air.** (False, this occurs during inhalation.)

**B) Carbon dioxide is expelled from the body.** (True, carbon dioxide is exhaled.)

**C) The diaphragm relaxes and moves up.** (True, the diaphragm relaxes, reducing chest space.)

**D) Air is pushed into the alveoli for gas exchange.** (False, air is expelled from the alveoli during exhalation.)

**Fill In the Blanks**

**9) Inside the chest, there are two lungs filled with tiny air sacs called _____.**

**Answer: Alveoli Explanation:** Alveoli are tiny air sacs in the lungs where gas exchange occurs.

**10) In the alveoli, oxygen from the air passes into tiny blood vessels called _____.**

**Answer: Capillaries Explanation:** Capillaries surround the alveoli, allowing oxygen to diffuse into the bloodstream and carbon dioxide to exit.

**Matching Type**

**11)** Here's the matching of the items in Column I with their corresponding descriptions in Column II:

**Answer:**

**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) What is the trachea also known as, and what is its function?**

**Answer:** The trachea, also known as the **windpipe**, is a tube made of cartilage rings that connects the larynx to the bronchi. Its function is to provide a clear pathway for air to move into and out of the lungs, ensuring smooth airflow during breathing.

**13) Explain the process of gas exchange in the alveoli.**

**Answer:** Gas exchange in the alveoli occurs as follows Oxygen from inhaled air diffuses through the thin walls of the alveoli into surrounding capillaries, where it binds to hemoglobin in red blood cells. Simultaneously, carbon dioxide, a waste product in the blood, diffuses from the capillaries into the alveoli. The carbon dioxide is then exhaled, while oxygen is transported to body tissues for cellular respiration. This process is driven by differences in

gas concentrations (diffusion gradient) and occurs efficiently due to the large surface area of the alveoli.

**14) What are capillaries, and what role do they play in gas exchange?**

**Answer:** Capillaries are tiny, thin-walled blood vessels that surround the alveoli in the lungs. Their role in gas exchange includes Allowing oxygen from the alveoli to diffuse into the bloodstream, where it binds to hemoglobin. Enabling carbon dioxide from the blood to diffuse into the alveoli for exhalation. The thin walls of capillaries and alveoli facilitate rapid diffusion of gases based on concentration gradients.

## LEARNER'S TASK (Page 55 -56)

**Multiple Choice Questions**

**1) What is the primary purpose of the respiratory system?**

**Answer: D) Facilitate gas exchange for cellular respiration Explanation:** The respiratory system's main role is to supply oxygen for cellular respiration and remove carbon dioxide.

**2) What are the entry points for air into the respiratory system?**

**Answer: B) Nose and Mouth Explanation:** Air enters the respiratory system through the nose and mouth, which filter, warm, and humidify the air.

**3) What is the trachea commonly known as?**

**Answer: C) Windpipe Explanation:** The trachea is commonly referred to as the windpipe due to its role as the main airway.

**4) Where are the lungs located in the body?**

**Answer: C) Chest Explanation:** The lungs are located in the chest cavity, protected by the ribcage.

**5) What are the tiny air sacs in the lungs called?**

**Answer: C) Alveoli Explanation:** Alveoli are the tiny air sacs where gas exchange occurs in the lungs.

**6) What happens to the alveoli when you breathe in?**

**Answer: B) They expand Explanation:** During inhalation, the alveoli expand as air fills the lungs, increasing the surface area for gas exchange.

**Advanced Level**

**More than One Answer Type**

**7) Which structures are involved in the exchange of gases in the respiratory system?**

**Answer: B, D**

**A) Nose and Mouth.** (False, they are entry points but not directly involved in gas exchange.)

**B) Alveoli.** (True, gas exchange occurs in the alveoli.)

**C) Bronchi.** (False, bronchi transport air, not exchange gases.)

**D) Capillaries.** (True, capillaries facilitate gas exchange with the alveoli.)

**8) What are the functions of the diaphragm in the respiratory system?**

**Answer: A, C**

**A) Contracting and moving down during inhalation.** (True, this expands the chest cavity.)

**B) Relaxing and moving up during inhalation.** (False, this occurs during exhalation.)

**C) Creating more space in the chest for lung expansion.** (True, diaphragm movement allows lungs to expand.)

**D) Assisting in the exchange of gases in the alveoli.** (False, gas exchange occurs in the alveoli, not the diaphragm.)

**Fill In the Blanks**

**9) The big muscle under your lungs that helps you breathe is called the _____.**

**Answer: Diaphragm Explanation:** The diaphragm is the primary muscle responsible for breathing, located below the lungs.

**10) The trachea, also known as the _____, is a tube made of cartilage rings.**

**Answer: Windpipe Explanation:** The trachea, or windpipe, is supported by cartilage rings to maintain an open airway.

**Matching Type**

**11) Answer:** Here's the correct matching

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) What is the main function of the respiratory system?**

**Answer:** The main function of the respiratory system is to facilitate gas exchange, supplying oxygen to the bloodstream for cellular respiration and removing carbon dioxide, a waste product, from the body.

**13) What happens to the diaphragm when you breathe in?**

**Answer:** When you breathe in (inhalation), the diaphragm contracts, flattens, and moves downward, creating more space in the chest cavity for the lungs to expand and fill with air.

**14) What happens to carbon dioxide after it is released from the capillaries? Answer:** After carbon dioxide is released from the capillaries into the alveoli during gas exchange, it is exhaled from the lungs into the atmosphere during exhalation.

## TEACHING TASK (Page 57 -59)

**Multiple Choice Questions**

### 1) What is the main job of the excretory system?

**Answer: B) To remove waste and extra water from your body**
**Explanation:** The excretory system eliminates metabolic waste and excess water to maintain bodily balance.

### 2) Which of the following is NOT a part of the excretory system?

**Answer: B) Lungs Explanation:** The kidneys, bladder, and urethra are part of the excretory system, but the lungs belong to the respiratory system (though they excrete carbon dioxide).

### 3) What is the function of the bladder?

**Answer: C) To store urine until you're ready to go to the bathroom**
**Explanation:** The bladder stores urine produced by the kidneys until it is expelled.

### 4) Where does urine go after it leaves the kidneys?

**Answer: C) Down the ureters to the bladder Explanation:** Urine travels from the kidneys through the ureters to the bladder for storage.

### 5) How does urine leave the body?

**Answer: D) Through the urethra Explanation:** Urine exits the body through the urethra, a tube connected to the bladder.

### 6) What can you do to help your excretory system work well?

**Answer: B) Drink plenty of water Explanation:** Drinking water supports kidney function and helps flush out waste.

**Advanced Level**

**More than One Answer Type**

**7) What happens during the blood filtration process in the kidneys?**

**Answer: A, B**

**A) The kidneys filter out the waste from the blood.** (True, kidneys remove waste like urea.)

**B) Urine is produced from the filtered waste and extra water.** (True, waste and water form urine.)

**C) The filtered blood becomes urine.** (False, filtered blood returns to circulation, not becomes urine.)

**D) Urine is stored directly in the urethra.** (False, urine is stored in the bladder.)

**8) How does the excretory system help keep your body clean and balanced?**

**Answer: A, C**

**A) Removes waste from your body.** (True, it eliminates metabolic waste.)

**B) Circulates oxygen in the blood.** (False, this is the respiratory system's role.)

**C) Removes extra water from your body.** (True, it regulates water balance.)

**D) Produces energy for the body.** (False, energy production is not its role.)

**Fill In the Blanks**

**9) The _____ are thin tubes that carry urine from the kidneys to the bladder.**

**Answer: Ureters Explanation:** Ureters are tubes that transport urine from the kidneys to the bladder.

**10) _____ is a balloon-like organ that stores urine.**

**Answer: Bladder Explanation:** The bladder is a flexible, balloon-like organ that stores urine until elimination.

**Matching Type**

**11) Answer:**

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) What role do the kidneys play in the excretory system?**

**Answer:** The kidneys are the primary organs of the excretory system, responsible for: Filtering blood to remove waste products (e.g., urea) and excess water. Producing urine from filtered waste and water. Regulating water and electrolyte balance to maintain homeostasis. Controlling blood pH and blood pressure (via hormone release like renin).

**13) What are the functions of the ureters, bladder, and urethra in the process of urine elimination from the body?**

**Answer:**

**Ureters:** These are thin tubes that transport urine from the kidneys to the bladder via peristaltic contractions.

**Bladder:** A muscular, balloon-like organ that stores urine until the body is ready to excrete it. It expands as it fills and signals the urge to urinate.

**Urethra:** A tube that carries urine from the bladder to the outside of the body during urination.

## LEARNER'S TASK (Page 59 – 60)

**Multiple Choice Questions**

**1) What shape are the kidneys?**

**Answer: C) Bean-shaped Explanation:** Kidneys are bean-shaped organs located on either side of the spine.

**2) What do the kidneys do?**

**Answer: B) Remove waste and extra water from the blood Explanation:** Kidneys filter blood to remove waste and excess water, forming urine.

**3) Why is the excretory system important?**

**Answer: B) It helps keep your body clean and balanced Explanation:** The excretory system removes waste and regulates water and electrolyte balance.

**4) What is the first step in the process of how the excretory system works?**

**Answer: C) Blood filtration Explanation:** Blood filtration in the kidneys is the initial step, producing urine from waste.

**5) How often do the kidneys filter all the blood in your body?**

**Answer: D) Every 5 minutes Explanation:** Kidneys filter the body's entire blood volume approximately every 5 minutes.

**6) What happens when the bladder is full?**

**Answer: B) You feel the need to go to the bathroom Explanation:** A full bladder triggers the urge to urinate, signaling the body to excrete urine.

**Advanced Level**

**More than One Answer Type**

**7) Which of the following are main parts of the excretory system?**

**Answer: A, C, D**

**A) Kidneys.** (True, they filter blood and produce urine.)

**B) Heart.** (False, the heart is part of the circulatory system.)

**C) Ureters.** (True, they transport urine to the bladder.)

**D) Bladder.** (True, it stores urine.)

**8) Which actions can help your excretory system work well?**

**Answer: A, C**

**A) Drinking plenty of water.** (True, it supports kidney function.)

**B) Holding your urine for a long time.** (False, this can harm the bladder.)

**C) Eating a balanced diet.** (True, it reduces strain on the kidneys.)

**D) Skipping meals.** (False, this does not support excretory health.)

**Fill In the Blanks**

**9) _____ is like the body's cleaning crew.**

**Answer: Excretory system Explanation:** The excretory system removes waste, acting as the body’s cleaning mechanism.

**10) During blood filtration, your blood travels through your _____, which filter out the waste and extra water.**

**Answer: Kidneys Explanation:** The kidneys filter blood to remove waste and water, forming urine.

**Matching Type**

**11) Answer:**

Here is the correct matching of the parts of the excretory system with their descriptions:

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) What is the main function of the excretory system?**

**Answer:** The main function of the excretory system is to remove metabolic waste (e.g., urea) and excess water from the body, maintaining homeostasis by regulating water, electrolyte balance, and blood pH.

**13**) **Describe the process of blood filtration in the kidneys and its outcome.**

**Answer:** Blood filtration in the kidneys occurs in the nephrons. Blood enters the kidneys via the renal arteries and flows into the nephrons. In the glomerulus (a network of capillaries), blood is filtered, removing waste (e.g., urea), excess water, and electrolytes. The filtered substances form a liquid called filtrate, which is processed into urine in the nephron tubules. Cleaned blood returns to circulation, while urine is collected and sent to the bladder via the ureters. Outcome: Urine, containing waste and excess water, is produced and eventually excreted, while filtered blood maintains bodily balance.