

WORKSHEET 1

CHAPTER 1 – LIFE PROCESSES (IV) EXCRETION

A. Tick (✓) the correct option.

- The excretory unit in human excretory system is
 - nephron.
 - nephridia.
 - kidney.
 - neuron.
- The procedure of cleaning the blood of a person by using artificial machine is known as
 - ketolysis.
 - hydrolysis.
 - dialysis.
 - photolysis.
- Nitrogenous wastes are formed from the breakdown of
 - fat.
 - water.
 - amino acid.
 - ammonia.
- Which is not the function of kidney?
 - Synthesis of urea
 - Excretion of urea
 - Reabsorption of water
 - Formation of urine
- Plant cells store their waste products in
 - cytoplasm.
 - vacuole.
 - lysosome.
 - ribosome.

B. Fill in the blanks.

- The cup-shaped capsule in a nephron is called _____
- Each kidney is connected to the urinary bladder by a tube called _____
- The kidneys excrete nitrogenous waste in the form of _____
- The dense network of capillaries in a Malpighian capsule is called _____
- The bag in which urine is collected is called _____

C. State true (T) or false (F).

- Dialysing solution is hypotonic to blood plasma.
- Renal vein carries pure blood free of nitrogenous waste.
- The right kidney is positioned slightly lower than the left kidney.
- Excretory organ in *Amoeba* is lysosome.
- Excretory organs in insects are Malpighian tubules.

D. Match the following.

- | | |
|---|-----------------------|
| 1. Haemodialysis | (a) earthworm |
| 2. Functional unit of kidney | (b) glomerulus |
| 3. Nephridia | (c) Bowman's capsule |
| 4. Bunch of capillaries in the Bowman's capsule | (d) nephron |
| 5. Cup-shaped structure of nephron | (e) artificial kidney |

Name:

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Class: X

Date:

E. Answer the following questions.

1. Define excretion. Name the excretory unit of kidney.
2. Describe the mechanism of urine formation.
3. Name the blood vessel which enters the glomerulus and the one that leaves it.
4. Assign the specific functions to the following in relation with excretion in human beings.
 - a. Kidney
 - b. Glomerulus and Bowman's capsule
 - c. Tubular part of nephron
 - d. Ureter
 - e. Urinary bladder
 - f. Urethra
5. Draw a well labelled diagram of human excretory system.

ANSWERS

WORKSHEET 1

A. Tick (✓) the correct option.

1. a 2. c 3. c 4. a 5. b

B. Fill in the blanks.

1. Bowman's capsule 2. Ureter 3. Urea 4. Glomerulus
5. Urinary bladder

C. State true (T) or false (F).

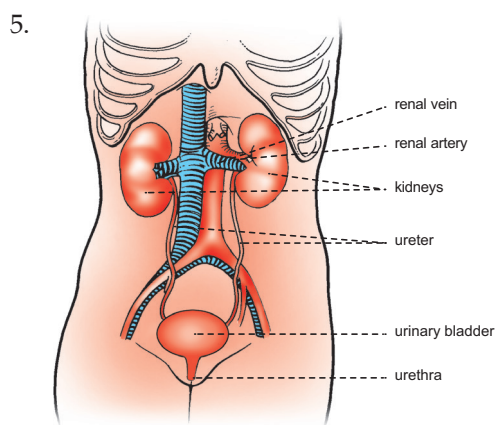
1. F 2. T 3. T 4. F 5. T

D. Match the following.

1. (e) 2. (d) 3. (a) 4. (b) 5. (c)

E. Answer the following questions.

- The process of removal of harmful metabolic waste products and salts from the body of an organism is called excretion. Nephron is the excretory unit of kidney.
- Blood capillaries arising from the artery which brings excretory substances to the kidney enter the cup-shaped structure called Bowman's capsule and form a bundle of capillaries called glomerulus. Blood passing through glomerulus is filtered along with excretory products. This filtrate passes through the tubules of nephron. During its passage useful substances like glucose, amino acid and excessive water are reabsorbed by blood capillaries surrounding the nephron. The nephric tubules open into collecting duct which drains the urine collected from the nephrons into the ureter. Urine passes into urinary bladder and is stored till thrown out of the body.
- Afferent arteriole and efferent arteriole respectively.
- Urine formation.
 - Ultrafiltration of blood.
 - Selective reabsorption of substances from filtrate.
 - Transport of urine from kidney to urinary bladder.
 - Collecting and storage of urine.
 - Tube for passage of urine.



The human excretory system