WORKSHEET 2

CHAPTER 9 – EXCRETION: ELIMINATION OF BODY WASTES

A. Choose the correct option.

1. Removal of nitrogenous waste from our body is called
   a. defecation. b. excretion. c. respiration. d. none of these.
2. The nephrons discharge their urine at the
   a. urinary bladder. b. urethra. c. renal pelvis. c. renal pyramid.
3. Functional unit of kidney is
   a. neuron. b. nephron. c. glomerulus. d. cortex.
4. Kidney excretes out
   a. CO_2. b. urea. c. sweat. d. O_2.
5. Distal convoluted tubule opens into
   a. collecting duct. b. ureter. c. urethra. d. urinary bladder.

B. Match the items in Column A with those in Column B and write down the matching pairs.

Column A	Column B
1. Osmoregulation	a. skin
2. Sweat	b. dialysis machine
3. Artificial kidney	c. kidney
4. Dead RBC	d. renal tubules
5. Kidney	e. bilirubin

C. Name the following.

1. The process by which metabolic wastes are removed from the body.
2. A tuft of blood capillaries found in the Bowman's capsule of nephron.
3. The term used for Bowman's capsule and glomerulus together.
4. The muscle which guards the urethra.
5. The blood vessels supplying blood to the kidney.

D. Give reasons.

1. Urine is thicker in summer than in winter.
2. Glucose is normally not found in urine.
3. The renal cortex has a dotted appearance.

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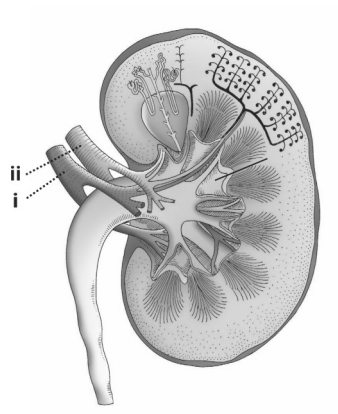
4. Reabsorption is called selective reabsorption.
5. It is necessary to maintain normal osmotic concentration of blood.

E. Answer the following questions based on the given diagram of the human kidney cut open longitudinally.



1. Give the definition of excretion.
2. Name the functional unit of kidney.
3. Why does the cortex of the kidney show a "dotted" appearance?
4. Mention two functions of the kidney.
5. Write the difference in the composition of the blood flowing through blood vessels **i** and **ii**.

ANSWERS

WORKSHEET 2

A. Choose the correct option.

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

B. Match the items in Column A with those in Column B and write down the matching pairs.

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

C. Name the following.

1. Excretion
2. Glomerulus
3. Malpighian capsule
4. Sphincters muscle
5. Renal artery

D. Give reasons.

1. During summer, we perspire more so more amount of water is required to maintain a water balanced in the body leaving more concentrated urine.
2. Glucose is reabsorbed in the proximal convoluted tubule.
3. This is because Bowman's capsule as well as glomerulus are present in the cortex portion of the kidney giving renal cortex a dotted appearance.
4. This is because not all, only certain molecules like ions, glucose, amino acids from the glomerular filtrate are reabsorbed as they pass through the nephron. Molecules like excess water and ions are not reabsorbed and continue along the nephron tubule as urine.
5. It is necessary to maintain normal osmotic concentration of blood to avoid osmosis in body cells and tissues. If it is not maintained then the tissues and cells may gain or loose water resulting in tissue and cell damage.

E. Answer the following questions based on the given diagram of the human kidney cut open longitudinally.

1. It is the removal of metabolic wastes from the body.
2. Nephrons
3. Due to presence of Malpighian capsules.
4. Removal of nitrogenous waste and osmoregulation.
5.

i – Renal artery	**ii – Renal vein**
It contains more urea.	It contain less urea.
The blood flowing through it is oxygenated.	Blood flowing through it is deoxygenated.
It contain more salts, water etc.	It contains less salt, water, etc.