

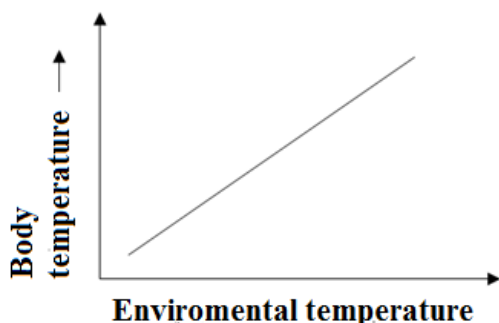
**GUIDE TO S.3 BIOLOGY ONLINE TEST 1**

TIME: 25 MINUTES

TOPIC: EXCRETION &amp; HOMEOSTASIS

**INSTRUCTION: Attempt all questions**

- The main value of sweating in man is that during the process
  - Excess water is removed from the body
  - Latent heat of vaporization of water helps to cool the body
  - Excess mineral salts are removed from the body
  - The body gets rid of excess nitrogenous wastes
- Possession of a long loop of Henle is a characteristic of;
  - Desert animals
  - Amphibians
  - Fresh water animals
  - Mammals
- Which of the following organs is responsible for removing excess glucose from blood?
  - Spleen
  - Liver
  - Kidney
  - Gall bladder
- Reptiles are well adapted to living on land due to presence of
  - Dry epidermal scales and egg membranes
  - Shelled eggs and lungs
  - Lungs and egg membranes
  - Dry epidermal scales and gular crest
- In the body temperature regulation, vasodilatation
  - Allows more blood to enter the skin capillary network
  - Allows more urine to be secreted into the bladder
  - Allows less sweat to be secreted by sweat glands
  - Decreases heat loss by radiation
- The waste product urea is formed from
  - Cellulose
  - Protein
  - Glucose
  - Fat
- Figure 2 shows changes in the body temperature with environmental temperature in an animal.



Which one of the following could be the animal represented?

- Bird
  - Dog
  - Human
  - Frog
- In which part of the kidney nephron does reabsorption of glucose occur?
    - Proximal convoluted tubule.
    - Distal convoluted tubule.
    - Descending loop of Henle.
    - Ascending loop of Henle.
  - Which **one** of the following stimulates the re-absorption of the water in the kidney?
    - Adrenaline
    - Antidiuretic hormone.
    - Thyroxine
    - Insulin
  - What is the function of contractile vacuole in the amoeba?
    - Storage of solid particles
    - Control of water content in the body
    - Storage of unwanted gaseous compounds
    - Digestion of food

11. The group of organs performing excretory functions is

- A. Kidneys, lungs and skin. C. Skin, kidneys and pancreas  
B. Liver, kidneys and pancreas D. Lungs, spleen and gall bladder.

A

12. Excretory products of plants include

- A. Oxygen and starch C. Oxygen and carbon dioxide  
B. Oxygen and urea D. Urea and carbon dioxide

C

13. Which one of the following responses is likely to occur in the human body when environmental temperature increases?

- A. Vasodilation C. Contraction of the erector pili muscle  
B. Shivering D. Increased metabolism

A

14. In which part of the nephron does ultrafiltration take place?

- A. Renal tubule B. Collecting tubule C. Glomerulus D. Renal vein

C

15. In which part of the nephron does reabsorption of sugars take place?

- A. Distal convoluted tubule C. Proximal convoluted tubule  
B. Loop of Henle D. Collecting duct

C

16. Which one of the following is the source, target and effect of insulin on the human body?

|   | Source   | Target   | Effects                             |
|---|----------|----------|-------------------------------------|
| A | Liver    | Liver    | Decrease amount of glucose in blood |
| B | Pancreas | Pancreas | Increase amount of glucose in blood |
| C | Liver    | Pancreas | Decrease amount of glucose in blood |
| D | Pancreas | Liver    | Decrease amount of glucose in blood |

D

17. Which of the following organs are used for excretion in insects and mammals respectively?

- A. Flame cells and Kidney C. Malpighian tubule and Kidney  
B. Nephridia and Kidney D. Trachioles and Kidneys

C

18. Which of the following glomerular components increases in concentration along the rest of parts of the nephron?

- A. Water B. Protein C. Glucose D. Urea

D

19. Which one of the following is the role of efferent vessel of the nephron?

- A. Drains the glomerulus C. Filters the blood  
B. Supplies the glomerulus D. Purifies the blood

A

20. The following are physiological processes that occur in the body of a mammal.

- (i) elimination of urea. (iii). regulation of water in the body  
(ii) regulation of salts in the body (iv). deamination of excess amino acids.

Which of them are carried out by the kidney?

- A. (i), (ii) and (iv) C. (i), (ii) and (iii)  
B. (ii), (iii) and (iv) D. (ii) and (iii) only.

C

**END!!!**

*“Don’t ask what the world needs. Ask what makes you come alive, and go do it.”*