

الإدارة المركزية للتعليم العام

مستشار مادة العلوم



# Weekly Home Work

Week ( 5 )

# Integrated Science

## Secondary one

### Second Term 2026

مراجعة

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إشراف عام

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رئيس الإدارة المركزية للتعليم العام  
والمشرف على مستشاري  
المواد الدراسية

إعداد

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د/ عزيزة رجب خليفة  
مستشار مادة العلوم

## Lesson Three: Excretion and Homeostasis, and Their Role in the Stability of the Biosphere

### Choose the correct answer

- 1- Ammonia in the liver is converted into ....  
A) Bilirubin  
B) Glucose  
C) Urea  
D) Uric acid
- 2- What is the main function of reabsorption in the kidneys ?  
A) Removing wastes from the blood  
B) Recovering useful substances such as glucose  
C) Storing urine  
D) Converting ammonia into urea
- 3- Urine moves from the kidney to the bladder through ....  
A) Ureters  
B) Urethra  
C) Nephron  
D) Blood vessels
- 4- Evaporation of sweat from the skin surface helps .....  
A) raise body temperature  
B) increase blood viscosity  
C) absorb oxygen  
D) decrease body temperature
- 5- Bile helps in the disposal of .....  
A) Glucose  
B) Oxygen  
C) Excess cholesterol  
D) Urea
- 6- Increased blood acidity caused by  $\text{CO}_2$  negatively affects ...  
A) Enzyme activity  
B) Bones  
C) Skin  
D) Hair



## Essay Questions

1- Explain: Why does the accumulation of CO<sub>2</sub> "threaten vital processes"?

.....

.....

.....

2- Explain: The liver acts as a main "processing station" for toxins.

.....

.....

.....

3- Give reason: Why losing large amounts of water is considered "dangerous to human life"?

.....

.....

.....

4- Explain: the role of the lungs in the excretion process?

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.....

.....

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# Weekly Assessment

Week ( 5 )

# Integrated Science

## Secondary one

### Second Term 2026

مراجعة

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مستشار مادة العلوم

## Lesson Three: Excretion and Homeostasis, and Their Role in the Stability of the Biosphere

### Model (A)

#### Choose the correct answer:

- 1) **The accumulation of metabolic wastes directly leads to.....**
  - a) Increase rate of catabolism
  - b) Decrease in temperature
  - c) Increase efficiency of cells
  - d) Disturbance of the chemical balance of fluids
  
- 2) **The subcutaneous layer functions as.....**
  - a) A barrier against microbes
  - b) A filter for blood
  - c) A thermal insulator due to its fat content
  - d) A producer of sweat
  
- 3) **The accumulation of bilirubin in the body leads to .....**
  - a) Jaundice
  - b) Bile
  - c) Asthma
  - d) Dehydration
  
- 4) **Which excretory organ would be most affected when consuming foods containing dyes?**
  - a) Lungs
  - b) Liver
  - c) Bladder
  - d) Skin

#### Essay Question

5- Explain: why metabolic wastes are considered "by-products" despite originating from essential reactions.

## Model (B)

### Choose the correct answer:

- 1) **Ammonia** is a waste product resulting from the breakdown of.....
  - a) Starch
  - b) Amino acids
  - c) Fats
  - d) Glucose
  
- 2) Which of the following organ contribute to regulating both body temperature and salts?
  - a) Salivary glands
  - b) Endocrine glands
  - c) liver
  - d) Skin
  
- 3) which of the following metabolic waste it's accumulation increases blood acidity?
  - a) Carbon dioxide
  - b) Mineral salt
  - c) Urea
  - d) Ammonia
  
- 4) **Metabolism** is a process of .....
  - a) Catabolism only
  - b) Anabolism only
  - c) Both catabolism and anabolism
  - d) Excretion only

### Essay Question

5- Explain: The nephron is considered the functional unit of the kidney.

Model (C)

Choose the correct answer

- 1) When examining a urine sample from a patient, it was found to contain large amounts of glucose. This may indicate a defect in the process of.....
  - a) Filtration
  - b) Storage of urine
  - c) Reabsorption
  - d) Excretion
  
- 2) An increase in the concentration of sodium ions in the blood directly affects
  - a) Rate of breathing
  - b) Kidneys activity
  - c) Production of skin pigment
  - d) Breakdown of hemoglobin
  
- 3) The breakdown of hemoglobin resulting from the destruction of old red blood cells produces the substance
  - a) Ammonia
  - b) Urea
  - c) Uric acid
  - d) Bilirubin
  
- 4) The relationship between "catabolism" and metabolic waste products is
  - a) Direct; increased catabolism increases waste products
  - b) Inverse; catabolism reduces waste products
  - c) constant; unaffected by activity
  - d) Metabolic waste products are limited to the products of anabolism only

Essay Question

5- Explain: The skin plays a dual role in human life.