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11.3 The Kidney & Osmoregulation

Easy

BIOLOGY

IB HL

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11.3 The Kidney & Osmoregulation

Question Paper

Course	DP IB Biology
Section	11. Animal Physiology (HL Only)
Topic	11.3 The Kidney & Osmoregulation
Difficulty	Easy

Time allowed: 10

Score: /5

Percentage: /100

Question 1

Which of the following statements about dehydration is **not** correct?

A. Dehydration can result from excessive sweating.

B. During dehydration more metabolic waste is removed from the body.

C. Symptoms of dehydration include a drop in blood pressure and concentrated urine.

D. Dehydration can occur if water is lost from the body and not replaced.

[1 mark]

Question 2

Which of the following statements about excretion of nitrogenous waste are correct?

I.
Nitrogenous waste comes from the breakdown of nucleic acids.

II.
Excreting nitrogenous waste in the form of urea or uric acid is more energy efficient than excreting it in the form of ammonia.

III.
Birds and insects excrete nitrogenous waste in the form of uric acid.

A. I only.

B. I and III only.

C. I, II, and III.

D. II and III only.

[1 mark]

Question 3

Which of the following is a correct definition of **osmoconforming**?

A. The osmolarity of an organism's body fluids matches those of other organisms around it.

B. Maintaining a constant body fluid osmolarity regardless of the osmolarity of the surrounding environment.

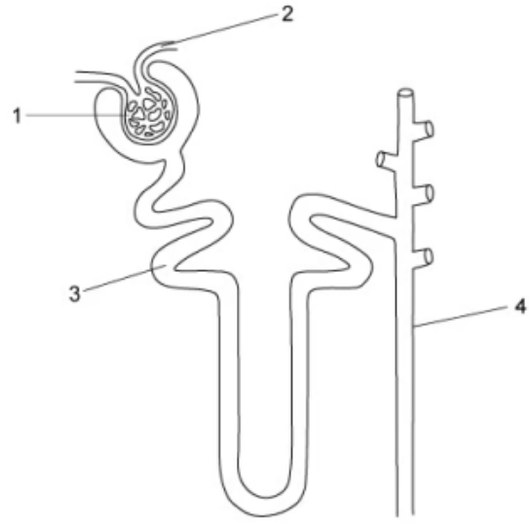
C. Cells with a lower osmolarity than the surrounding environment will gain water by osmosis and shrink.

D. The osmolarity of an organism's body fluids matches those of its surroundings.

[1 mark]

Question 4

Which row in the table correctly identifies the structures labelled **1-4** in the diagram of a nephron?



	1	2	3	4
A.	Glomerulus	Afferent arteriole	Loop of Henle	Collecting duct
B.	Glomerulus	Efferent arteriole	Proximal convoluted tubule	Collecting duct
C.	Bowman's capsule	Efferent arteriole	Loop of Henle	Distal convoluted tubule
D.	Bowman's capsule	Afferent arteriole	Proximal convoluted tubule	Renal pelvis

[1 mark]

Question 5

Which of the following rows correctly shows the concentration of substances in dialysis fluid compared to the blood of an otherwise healthy individual at the start of dialysis?

	Ions	Glucose	Urea
A.	Low	Similar	Low
B.	High	High	Low
C.	Similar	Similar	Low
D.	Similar	Similar	High

[1 mark]