BIOLOGY 3201 · NEWFOUNDLAND AND LABRADOR

Biology 3201
Practice Test

Unit A: Maintaining Dynamic Equilibrium II

25 Questions

Original practice test based on the Newfoundland and Labrador curriculum. Work through each question, then check your answers at the end.

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

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Question 1

Which structure in the brain acts as the main control centre for body temperature?

A) cerebellum

B) hypothalamus

C) medulla

D) cerebrum

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Question 2

In negative feedback control of blood glucose, insulin acts to

A) raise blood glucose

B) lower blood glucose

C) raise body temperature

D) lower heart rate

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Question 3

Glucagon acts on the liver to

A) lower blood glucose

B) increase urine output

C) raise blood glucose

D) slow the heart

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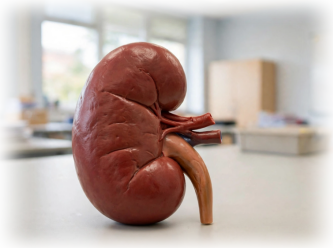

Question 4

Antidiuretic hormone increases the amount of water reabsorbed in the

A) glomerulus

B) renal artery

C) ureter

D) collecting duct

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Question 5

Aldosterone increases the reabsorption of which ion by the kidney?

A) sodium

B) calcium

C) potassium in excess

D) hydrogen only

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Question 6

Thyroxine from the thyroid gland mainly acts to

A) decrease metabolic rate

B) increase metabolic rate

C) increase urine volume

D) decrease blood calcium

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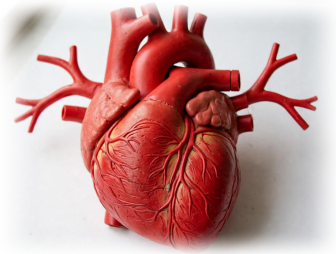

Question 7

Adrenaline prepares the body for fight or flight by increasing

A) insulin release

B) urine production

C) heart rate

D) digestive activity

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Question 8

In a neuron, the axon carries a nerve impulse

A) toward the cell body

B) across the synapse only

C) into the nucleus

D) away from the cell body

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Question 9

At a synapse, a signal crosses the gap between neurons by means of a

A) neurotransmitter

B) hormone in blood only

C) myelin sheath

D) dendrite

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Question 10

A myelin sheath around an axon acts to

A) slow down impulse conduction

B) speed up impulse conduction

C) block all impulses

D) produce neurotransmitter

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Question 11

In the kidney, filtration of blood plasma first occurs in the

A) loop of Henle

B) collecting duct

C) glomerulus

D) ureter

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Question 12

The loop of Henle helps produce concentrated urine mainly by reabsorbing

A) glucose only

B) red blood cells

C) urea only

D) water and salt

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Question 13

The pituitary gland is often called the master gland because it releases hormones that control

A) other endocrine glands

B) only skeletal muscle

C) only the skin

D) only the stomach

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Question 14

The endocrine tissue of the pancreas that produces insulin is the

A) adrenal cortex

B) islets of Langerhans

C) thyroid follicles

D) parathyroid glands

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Question 15

Homeostasis is best described as the maintenance of

A) constant external conditions

B) rising body temperature

C) stable internal conditions

D) falling blood pressure

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Question 16

A person's core temperature is 37 degrees. It rises by 2 degrees. The new core temperature in degrees is

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Question 17

Blood glucose falls from 90 units to 60 units. The fall in blood glucose in units is

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Question 18

A person takes in 2400 millilitres of water and loses 1800 millilitres. The net gain of water in millilitres is

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Question 19

A resting heart rate of 72 beats per minute rises by 24 beats per minute. The new heart rate in beats per minute is

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Question 20

A kidney filters 180 litres in a day and reabsorbs 178 litres. The volume excreted as urine in litres is

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Question 21

Urine output falls from 1500 millilitres to 900 millilitres. The decrease in urine output in millilitres is

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Question 22

A myelinated axon conducts at 120 metres per second. The time in seconds to travel 360 metres is

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Question 23

A person loses 800 millilitres of sweat per hour for 3 hours. The total sweat loss in millilitres is

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Question 24

Sodium intake is 4000 milligrams and 3200 milligrams are excreted. The sodium retained in milligrams is

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Question 25

Breathing rate rises from 16 breaths per minute to 24 breaths per minute. The extra breaths in one hour is

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ANSWER KEY

1.	B	**10.**	B	**18.**	600
2.	B	**11.**	C	**19.**	96
3.	C	**12.**	D	**20.**	2
4.	D	**13.**	A	**21.**	600
5.	A	**14.**	B	**22.**	3
6.	B	**15.**	C	**23.**	2400
7.	C	**16.**	39	**24.**	800
8.	D	**17.**	30	**25.**	480
9.	A				

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