NOVA SCOTIA BIOLOGY 12 · UNIT A

Maintaining Dynamic Equilibrium II — Practice Test

Nova Scotia Biology 12 • 25 questions

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.

1 **A heart beats 140 times in 120 seconds. The heart rate, in beats per minute, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

2 **A heart beats 180 times in 120 seconds. The heart rate, in beats per minute, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

3 **A heart beats 75 times in 60 seconds. The heart rate, in beats per minute, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

4 **A person takes 30 breaths in 120 seconds. The breathing rate, in breaths per minute, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

5 **A person takes 36 breaths in 120 seconds. The breathing rate, in breaths per minute, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

6 **A person takes 24 breaths in 60 seconds. The breathing rate, in breaths per minute, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

7 **A nerve impulse travels 60 metres in 0.5 seconds. The speed of the impulse, in metres per second, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

8 **A nerve impulse travels 100 metres in 1 seconds. The speed of the impulse, in metres per second, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

9 **A nerve impulse travels 90 metres in 0.75 seconds. The speed of the impulse, in metres per second, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

10 **A kidney filters 180 litres of fluid in a day and reabsorbs 99 percent of it. The volume of urine produced, in litres, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

11 **A kidney filters 200 litres of fluid in a day and reabsorbs 99 percent of it. The volume of urine produced, in litres, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

12 **A kidney filters 150 litres of fluid in a day and reabsorbs 98 percent of it. The volume of urine produced, in litres, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

13 **A hormone sample starts at 80 units. After 2 half lives the amount remaining, in units, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

14 **A hormone sample starts at 160 units. After 3 half lives the amount remaining, in units, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

15 **A hormone sample starts at 96 units. After 2 half lives the amount remaining, in units, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

16 **A plant sample has a mass of 50 grams. After absorbing water its mass is 55 grams. The percent increase in mass is**

ANSWER _____

Understand It with Pulse | Flag a mistake

17 **A plant sample has a mass of 40 grams. After absorbing water its mass is 48 grams. The percent increase in mass is**

ANSWER _____

Understand It with Pulse | Flag a mistake

18 **A plant sample has a mass of 80 grams. After absorbing water its mass is 100 grams. The percent increase in mass is**

ANSWER _____

Understand It with Pulse | Flag a mistake

19 **The structure in a neuron that receives signals from other cells is**

- A dendrite
- B axon
- C nucleus
- D myelin sheath

Understand It with Pulse | Flag a mistake

20 **The gap between two neurons across which a signal passes is**

- A axon
- B synapse
- C dendrite
- D nucleus

Understand It with Pulse | Flag a mistake

21 **In a reflex arc the correct order of structures is**

- A effector then motor neuron then sensory neuron then receptor
- B receptor then motor neuron then sensory neuron then effector
- C receptor then sensory neuron then motor neuron then effector
- D sensory neuron then receptor then effector then motor neuron

Understand It with Pulse | Flag a mistake

22 **Compared with nerve impulses, hormones travel through the body**

- A more quickly and briefly
- B at the same speed
- C only in nerves
- D more slowly but for longer

Understand It with Pulse | Flag a mistake

23 **Antidiuretic hormone acts on the kidney to**

A increase water reabsorption

B increase urine volume

C decrease water reabsorption

D block filtration

Understand It with Pulse | Flag a mistake

24 **The functional unit of the kidney is the**

A neuron

B nephron

C alveolus

D villus

Understand It with Pulse | Flag a mistake

25 **Negative feedback in body temperature control works by**

A increasing every change

B stopping all hormone release

C reversing a change from the set point

D ignoring the set point

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	70	**10.**	1.8	**19.**	A
2.	90	**11.**	2	**20.**	B
3.	75	**12.**	3	**21.**	C
4.	15	**13.**	20	**22.**	D
5.	18	**14.**	20	**23.**	A
6.	24	**15.**	24	**24.**	B
7.	120	**16.**	10	**25.**	C
8.	100	**17.**	20		
9.	120	**18.**	25		

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