BIO40 · MANITOBA

BIO40
Practice Test

Unit B: Mechanisms of Inheritance

25 Questions

Original practice test based on the Manitoba 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

A heart beats 65 times per minute. In 3 minutes it beats

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Question 2

A population of 10 doubles 4 times. Its final size is

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Question 3

An object of size 4 units seen at magnification 50 times has image size

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Question 4

30 grams of fat provide energy at 9 kilocalories per gram. The energy is, in kilocalories

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Question 5

20 grams of protein in grilled chicken provide energy at 4 kilocalories per gram. The energy is, in kilocalories

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Question 6

One cell divides 4 times with no cell death. The number of cells is

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Question 7

A change in the genetic material of an organism is a

A) adaptation

B) mutation

C) variation

D) selection

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Question 8

A neutral solution has a pH of

A) 0

B) 14

C) 7

D) 1

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Question 9

In a monohybrid cross of a heterozygous parent and a homozygous recessive parent, the percent of offspring described is

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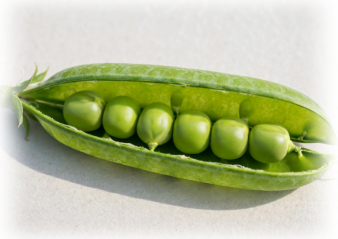

Question 10

In a monohybrid cross of two heterozygous pea plants, the percent of offspring described is

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Question 11

The basic unit of life is the

A) organ

B) cell

C) tissue

D) organism

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Question 12

The force that pulls objects toward Earth is

A) friction

B) magnetism

C) inertia

D) gravity

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Question 13

The maintenance of a stable internal environment is

A) photosynthesis

B) fermentation

C) osmosis

D) homeostasis

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Question 14

The molecule that carries genetic instructions is

A) DNA

B) RNA only

C) protein only

D) glucose

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Question 15

The movement of water across a partially permeable membrane is

A) osmosis

B) diffusion

C) active transport

D) photosynthesis

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Question 16

The organ that pumps blood around the body is the

A) liver

B) heart

C) lung

D) kidney

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Question 17

A heart beats 95 times per minute. In 5 minutes it beats

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Question 18

A population of 30 doubles 4 times. Its final size is

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Question 19

An object of size 2 units seen at magnification 30 times has image size

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Question 20

10 grams of fat in butter provide energy at 9 kilocalories per gram. The energy is, in kilocalories

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Question 21

50 grams of protein provide energy at 4 kilocalories per gram. The energy is, in kilocalories

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Question 22

One cell divides 3 times with no cell death. The number of cells is

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Question 23

A heart beats 85 times per minute. In 3 minutes it beats

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Question 24

A population of 40 doubles 4 times. Its final size is

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Question 25

An object of size 8 units seen through a microscope at magnification 50 times has image size

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ANSWER KEY

1. 195
2. 160
3. 200
4. 270
5. 80
6. 96
7. B
8. C
9. 50
10. 75
11. B
12. D
13. D
14. A
15. A
16. B
17. 475
18. 480
19. 60
20. 90
21. 200
22. 16
23. 255
24. 640
25. 400

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