ENGLAND GCSE BIOLOGY OCR GATEWAY FOUNDATION · UNIT 5 · 25 QUESTIONS

Genes, Inheritance and Selection — Practice Test

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 so it can be fixed.

1 **Horses eat grass. What trophic level are horses?**

- A producers
- B secondary consumers
- C primary consumers
- D decomposers

Understand It with Pulse | Flag a mistake

2 **A honeybee collects nectar. What is nectar?**

A a sugary liquid

B a protein-rich food

C a mineral solution

D a fatty substance

Understand It with Pulse | Flag a mistake

3 **A sunflower makes glucose in its leaves. Which gas does it take in for photosynthesis?**

A nitrogen gas from the air

B carbon dioxide

C hydrogen gas from the air

D oxygen gas from the air

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4 **Rabbits with white fur survive better in snow. What is this an example of?**

A mutation

B artificial selection

C natural selection

D extinction

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5 **A peach is a fruit. Which part of the flower does it develop from?**

A the petal

B the stigma

C the anther

D the ovary

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6 **Eggs are produced by hens. What is the female reproductive cell called?**

A a zygote

B an embryo

C an egg cell

D a sperm cell

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7 **Which disorder is caused by a dominant allele?**

A polydactyly

B cystic fibrosis

C sickle cell anaemia

D haemophilia

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8 **What is a mutation?**

A a change in the number of cells

B a change in the number of chromosomes

C a change in the DNA base order

D a change in the size of a cell

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9 **One parent is heterozygous and the other is homozygous recessive. What is the probability their child is homozygous recessive?**

A 50%

B 25%

C 0%

D 75%

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10 **What is natural selection?**

A survival of the strongest only

B random extinction

C breeding by humans

D survival of the best adapted

Understand It with Pulse | Flag a mistake

11 **In a DNA sample, 30 percent of the bases are adenine. What percent are thymine?**

A 70%

B 20%

C 40%

D 30%

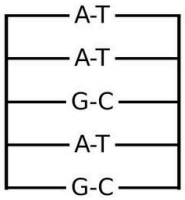
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12 **What is tissue culture?**

- **A** growing bacteria on agar plates
- **B** cloning animals from adult cells
- **C** growing plants from a few cells
- **D** growing plants from seeds

Understand It with Pulse | Flag a mistake

13 **The diagram shows a short section of DNA. How many base pairs are there in total?**



- **A** 5
- **B** 7
- **C** 4
- **D** 6

Understand It with Pulse | Flag a mistake

14 **What is an ethical issue with embryo screening?**

A it always harms the embryo badly

B it guarantees a healthy baby

C it raises difficult choices

D it changes the genes of the parents

Understand It with Pulse | Flag a mistake

15 **How are GM crops made?**

A by changing their genes

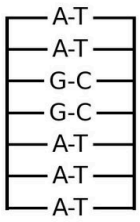
B by watering them more

C by spraying them with chemicals

D by growing them in greenhouses

Understand It with Pulse | Flag a mistake

16 **The diagram shows a short section of DNA. How many adenine-thymine pairs are there?**



- **A** 4
- **B** 5
- **C** 8
- **D** 7

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17 **Which chromosomes determine that a baby is male?**

- **A** two X chromosomes
- **B** an X and a Y
- **C** one X only
- **D** two Y chromosomes

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18 **What are the three domains of life?**

A Animals, Plants and Fungi

B Prokaryotes, Eukaryotes and Viruses

C Archaea, Bacteria and Eukaryota

D Bacteria, Viruses and Fungi

Understand It with Pulse | Flag a mistake

19 **What does dominant mean in genetics?**

A the allele is on the X chromosome

B the allele shows only with two copies

C the allele shows even with one copy

D the allele never shows

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20 **What is a genome?**

A all the genes on one chromosome

B all the cells of an organism

C all the proteins of an organism

D all the DNA of an organism

Understand It with Pulse | Flag a mistake

21 **One parent is homozygous dominant and the other is heterozygous. What is the probability their child is homozygous recessive?**

A 75%

B 25%

C 50%

D 0%

Understand It with Pulse | Flag a mistake

22 **What is meiosis?**

A the copying of DNA

B the fusion of two gametes

C cell division that makes body cells

D cell division that makes gametes

Understand It with Pulse | Flag a mistake

23 **In a DNA sample, 25 percent of the bases are adenine. What percent are thymine?**

A 15%

B 75%

C 35%

D 25%

Understand It with Pulse | Flag a mistake

24 **What is an embryo transplant?**

- A moving genes between embryos
- B freezing an embryo for later use
- C splitting an embryo into two
- D fusing two embryos into one animal

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25 **What is a clone?**

- A an organism that looks similar to another organism
- B an organism genetically identical to another
- C a twin
- D a new species

Understand It with Pulse | Flag a mistake

ANSWER KEY

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

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