ENGLAND GCSE BIOLOGY OCR TWENTY FIRST CENTURY HIGHER · UNIT 1 · 25 QUESTIONS

You and Your Genes — 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 **Eggs contain protein. Which part of the egg is mostly protein?**

- A the air sac
- B the shell
- C the yolk
- D the white

Understand It with Pulse | Flag a mistake

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

- A a mineral solution
- B a sugary liquid
- C a fatty substance
- D a protein-rich food

Understand It with Pulse | Flag a mistake

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

- A extinction
- B mutation
- C natural selection
- D artificial selection

Understand It with Pulse | Flag a mistake

4 **A peach contains a stone. What is inside the stone?**

- A a leaf
- B a seed
- C a root
- D a flower

Understand It with Pulse | Flag a mistake

5 **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

6 **A brown dog has fleas. What are fleas?**

A prey

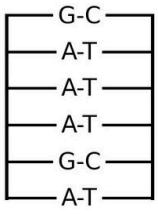
B producers

C predators

D parasites

Understand It with Pulse | Flag a mistake

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



- **A** 5
- **B** 7
- **C** 6
- **D** 8

Understand It with Pulse | Flag a mistake

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

- **A** cystic fibrosis
- **B** sickle cell anaemia
- **C** haemophilia
- **D** polydactyly

Understand It with Pulse | Flag a mistake

9 **What causes polydactyly?**

A an extra chromosome

B a missing chromosome

C a recessive allele

D a dominant allele

Understand It with Pulse | Flag a mistake

10 **Two heterozygous parents have a child. What is the probability the child is homozygous recessive?**

A 75%

B 0%

C 25%

D 50%

Understand It with Pulse | Flag a mistake

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

- A the allele shows even with one copy
- B the allele is on the X chromosome
- C the allele shows only with two copies
- D the allele never shows

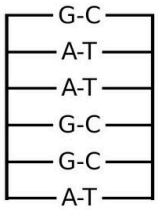
Understand It with Pulse | Flag a mistake

12 **How are GM crops made?**

- A by watering them more
- B by growing them in greenhouses
- C by spraying them with chemicals
- D by changing their genes

Understand It with Pulse | Flag a mistake

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



- **A** 3
- **B** 2
- **C** 5
- **D** 6

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

15 **In a DNA sample, 20 percent of the bases are adenine. What percent are thymine?**

A 80%

B 30%

C 10%

D 20%

Understand It with Pulse | Flag a mistake

16 **What is meiosis?**

A cell division that makes gametes

B cell division that makes body cells

C the copying of DNA

D the fusion of two gametes

Understand It with Pulse | Flag a mistake

17 **What is genetic engineering?**

- A cloning plants from cuttings
- B moving a gene between organisms
- C breeding animals for many generations
- D selecting the best seeds to sow

Understand It with Pulse | Flag a mistake

18 **What is a genome?**

- A all the DNA of an organism
- B all the genes on one chromosome
- C all the proteins of an organism
- D all the cells of an organism

Understand It with Pulse | Flag a mistake

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

- A 50%
- B 25%
- C 75%
- D 0%

Understand It with Pulse | Flag a mistake

20 **What is a clone?**

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

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21 **Two pea plants with genotype Bb are crossed. What fraction of the offspring will show the recessive trait?**

A 3/4

B 1/2

C 1

D 1/4

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

A 40%

B 30%

C 70%

D 20%

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23 **Which disorder is caused by a recessive allele?**

A cystic fibrosis

B Huntington's disease

C Down's syndrome

D polydactyly

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24 **What is the genome?**

A all the proteins in a cell

B one gene

C all the DNA of an organism

D one chromosome

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25

What causes Huntington disease?

A a missing chromosome

B a viral infection of the brain

C a dominant allele acting late

D a recessive allele that acts at birth

Understand It with Pulse

Flag a mistake

ANSWER KEY

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

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