ENGLAND GCSE COMBINED SCIENCE AQA TRILOGY FOUNDATION · UNIT 6 · 25 QUESTIONS

# Inheritance, Variation and Evolution — 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** **A forest provides a habitat. What does habitat mean?**

- A when an organism sleeps
- B what an organism eats
- C where an organism lives
- D how an organism breeds

Understand It with Pulse | Flag a mistake

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

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

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3 **A honeybee moves pollen between flowers. What is this an example of?**

- A photosynthesis
- B germination
- C pollination
- D fertilisation

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4 **Horses have different coat colours. What causes the differences?**

- A different habitats
- B different alleles
- C different species
- D different diets

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5 **A brown dog is bitten by a tick. Ticks can spread disease. How is the disease spread?**

- A by touch
- B through the air
- C by a vector
- D through water

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6 **Rabbits breed quickly. What does this mean for the population?**

A it always falls

B it can grow fast

C it always stays small

D it never changes

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

A 0%

B 75%

C 50%

D 25%

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8 **Why do identical twins look the same?**

A they eat the same food

B they live in the same house

C they were born together

D they have the same genes

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

A cystic fibrosis

B Huntington's disease

C polydactyly

D Down's syndrome

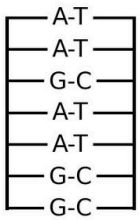
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**10** **Which chromosomes determine that a baby is male?**

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

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




- **A** 6
- **B** 8
- **C** 7
- **D** 9

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

- A 30%
- B 20%
- C 10%
- D 80%

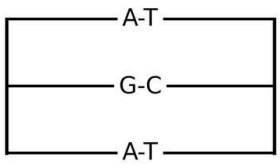
Understand It with Pulse | Flag a mistake

13 **How many chromosomes does a human gamete have?**

- A 12
- B 23
- C 92
- D 46

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




- **A** 5
- **B** 1
- **C** 4
- **D** 2

Understand It with Pulse | Flag a mistake

**15** **How can the spread of resistant bacteria be reduced?**

- **A** only use antibiotics when needed
- **B** use antibiotics for every illness
- **C** stop washing hands
- **D** share antibiotics

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

A 0%

B 75%

C 50%

D 25%

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17 **What is selective breeding?**

A breeding organisms in the wild

B breeding organisms at random without choosing

C letting organisms breed naturally

D breeding organisms with wanted traits

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

A sickle cell anaemia

B polydactyly

C cystic fibrosis

D haemophilia

Understand It with Pulse | Flag a mistake

19 **A couple have three children, all girls. What is the chance their next child is a girl?**

A 1/8

B 1/4

C 1/2

D 3/4

Understand It with Pulse | Flag a mistake

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

- A 70%
- B 20%
- C 40%
- D 30%

Understand It with Pulse | Flag a mistake

21 **What is the correct order of classification, from largest to smallest?**

- A species, genus, family, order, class, phylum, kingdom
- B kingdom, class, phylum, order, genus, family, species
- C phylum, kingdom, class, family, order, genus, species
- D kingdom, phylum, class, order, family, genus, species

Understand It with Pulse | Flag a mistake

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

A the allele never shows

B the allele shows only with two copies

C the allele shows even with one copy

D the allele is on the X chromosome

Understand It with Pulse | Flag a mistake

23 **What is a mutation?**

A a new species

B a disease

C a change in the environment

D a change in the DNA

Understand It with Pulse | Flag a mistake

24 **How are GM crops made?**

A by growing them in greenhouses

B by spraying them with chemicals

C by changing their genes

D by watering them more

Understand It with Pulse | Flag a mistake

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

A 15%

B 25%

C 75%

D 35%

Understand It with Pulse | Flag a mistake

# ANSWER KEY

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

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