ENGLAND GCSE COMBINED SCIENCE AQA TRILOGY HIGHER · 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 honeybee moves pollen between flowers. What is this an example of?**

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

Understand It with Pulse | Flag a mistake

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

A it always falls

B it always stays small

C it can grow fast

D it never changes

Understand It with Pulse | Flag a mistake

3 **A forest absorbs carbon dioxide. Which process does this?**

A combustion of the wood

B respiration in the trees

C photosynthesis

D decomposition in the soil

Understand It with Pulse | Flag a mistake

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

A primary consumers

B producers

C decomposers

D secondary consumers

Understand It with Pulse | Flag a mistake

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

A a root

B a flower

C a leaf

D a seed

Understand It with Pulse | Flag a mistake

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

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

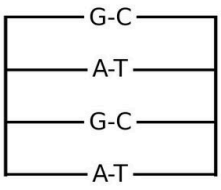
Understand It with Pulse | Flag a mistake

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 25%
- D 50%

Understand It with Pulse | Flag a mistake

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



A 1

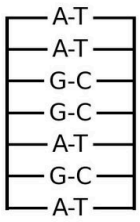
B 5

C 4

D 2

Understand It with Pulse | Flag a mistake

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



A 7

B 9

C 6

D 8

Understand It with Pulse | Flag a mistake

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

A 75%

B 25%

C 15%

D 35%

Understand It with Pulse | Flag a mistake

11 **What is meiosis?**

A the fusion of two gametes

B cell division that makes body cells

C the copying of DNA

D cell division that makes gametes

Understand It with Pulse | Flag a mistake

12 **Where is DNA found in a cell?**

A in the cytoplasm

B in the mitochondria only

C in the nucleus

D in the cell membrane

Understand It with Pulse | Flag a mistake

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

A 1

B 1/4

C 3/4

D 1/2

Understand It with Pulse | Flag a mistake

14 **What is selective breeding?**

A breeding organisms at random without choosing

B breeding organisms in the wild

C letting organisms breed naturally

D breeding organisms with wanted traits

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 20%

C 10%

D 30%

Understand It with Pulse | Flag a mistake

16 **How does sexual reproduction cause variation?**

A it changes the number of chromosomes

B it stops mutations

C it copies one parent exactly

D it mixes genes from two parents

Understand It with Pulse | Flag a mistake

17 **A pea plant with genotype Bb is crossed with a plant with genotype bb. What fraction of the offspring will be bb?**

A 1

B 1/4

C 1/2

D 3/4

Understand It with Pulse | Flag a mistake

18 **What is a clone?**

A a twin

B an organism genetically identical to another

C a new species

D an organism that looks similar to another organism

Understand It with Pulse | Flag a mistake

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

A the allele shows only with two copies

B the allele is on the X chromosome

C the allele shows even with one copy

D the allele never shows

Understand It with Pulse | Flag a mistake

20 How many chromosomes does a human gamete have?

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

Understand It with Pulse | Flag a mistake

21 What is a gene bank?

- A a bank that stores money
- B a store of seeds or genes
- C a hospital for genetic disorders
- D a laboratory for cloning

Understand It with Pulse | Flag a mistake

22 **What is the genome?**

A one gene

B all the proteins in a cell

C one chromosome

D all the DNA of an organism

Understand It with Pulse | Flag a mistake

23 **Which bacterium is resistant to many antibiotics?**

A MRSA

B TB bacteria

C E. coli

D Salmonella

Understand It with Pulse | Flag a mistake

24 **A mother has blood group O and a father has blood group AB. Which blood group can their children NOT have?**

- A A
- B O
- C B
- D AB

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

ANSWER KEY

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

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