ENGLAND GCSE BIOLOGY OCR TWENTY FIRST CENTURY FOUNDATION · 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 **Rabbits breed quickly. What does this mean for the population?**

- A it never changes
- B it always stays small
- C it always falls
- D it can grow fast

Understand It with Pulse | Flag a mistake

2 **A brown dog is vaccinated. What does the vaccine contain?**

- A an antibiotic
- B a dead or weakened pathogen
- C white blood cells
- D a live dangerous pathogen that causes disease

Understand It with Pulse | Flag a mistake

3 **A peach tree flowers in spring. What do bees carry between flowers?**

- A seeds
- B pollen
- C water
- D leaves

Understand It with Pulse | Flag a mistake

4 **Horses are bred for speed. What is this called?**

- A mutation of the genes
- B selective breeding
- C natural selection in the wild
- D evolution over millions of years

Understand It with Pulse | Flag a mistake

5 **Eggs contain protein. Which part of the egg is mostly protein?**

A the white

B the shell

C the yolk

D the air sac

Understand It with Pulse | Flag a mistake

6 **A honeybee is an insect. How many legs does it have?**

A 6

B 10

C 8

D 4

Understand It with Pulse | Flag a mistake

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

A 80%

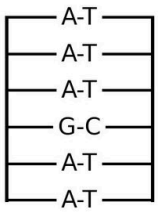
B 30%

C 10%

D 20%

Understand It with Pulse | Flag a mistake

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



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

Understand It with Pulse | Flag a mistake

9 **What is selective breeding?**

- **A** breeding organisms with wanted traits
- **B** letting organisms breed naturally
- **C** breeding organisms at random without choosing
- **D** breeding organisms in the wild

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

11 **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 1/2
- C 3/4
- D 1/4

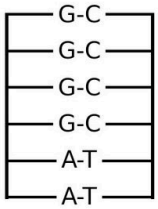
Understand It with Pulse | Flag a mistake

12 **Which bases pair together in DNA?**

- **A** A pairs with A, T pairs with T
- **B** A pairs with C, T pairs with G
- **C** A pairs with G, C pairs with T
- **D** A pairs with T, C pairs with G

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

Understand It with Pulse | Flag a mistake

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

A it changes the genes of the parents

B it always harms the embryo badly

C it raises difficult choices

D it guarantees a healthy baby

Understand It with Pulse | Flag a mistake

15 **What is an embryo transplant?**

A moving genes between embryos

B fusing two embryos into one animal

C freezing an embryo for later use

D splitting an embryo into two

Understand It with Pulse | Flag a mistake

16 **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

17 **How are GM crops made?**

A by changing their genes

B by watering them more

C by growing them in greenhouses

D by spraying them with chemicals

Understand It with Pulse | Flag a mistake

18 **What is a genotype?**

A the appearance of an organism

B the alleles an organism has

C the sex of an organism

D the number of chromosomes

Understand It with Pulse | Flag a mistake

19 **What is meiosis?**

A the copying of DNA

B cell division that makes gametes

C cell division that makes body cells

D the fusion of two gametes

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

22 **What does non-coding DNA do?**

A it is junk with no function at all

B it makes proteins directly

C it copies the whole genome

D it controls genes switching on

Understand It with Pulse | Flag a mistake

23 **What is a problem with selective breeding?**

A a smaller gene pool

B crops that grow too fast

C animals that are too healthy

D more variation in the offspring

Understand It with Pulse | Flag a mistake

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

A they have the same genes

B they live in the same house

C they eat the same food

D they were born together

Understand It with Pulse | Flag a mistake

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

A the allele shows only with two copies

B the allele shows even with one copy

C the allele never shows

D the allele is on the X chromosome

Understand It with Pulse | Flag a mistake

ANSWER KEY

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

© 2026 Brett Robbins. All Rights Reserved.