ENGLAND GCSE COMBINED SCIENCE 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 in a population show different fur colours. What is this called?**

A variation

B evolution

C selection

D mutation

Understand It with Pulse | Flag a mistake

2 **A honeybee visits a flower to collect nectar. What does it carry between flowers?**

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

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

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

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

A prey

B parasites

C predators

D producers

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

A an egg cell

B a zygote

C a sperm cell

D an embryo

Understand It with Pulse | Flag a mistake

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

A producers

B decomposers

C primary consumers

D secondary consumers

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

A 1/2

B 1

C 1/4

D 3/4

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8 **Where did the nucleus for Dolly come from?**

A from a sperm cell

B from an embryo cell

C from an egg cell

D from an adult cell

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

A 80%

B 10%

C 20%

D 30%

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10 **What is selective breeding?**

A breeding organisms with wanted traits

B letting organisms breed naturally

C breeding organisms in the wild

D breeding organisms at random without choosing

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

A cystic fibrosis

B polydactyly

C Huntington's disease

D Down's syndrome

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12 **What causes cystic fibrosis?**

A two recessive alleles

B an infection in the lungs

C a mutation in the sex chromosomes

D a dominant allele

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13 **What is a genotype?**

A the number of chromosomes

B the sex of an organism

C the alleles an organism has

D the appearance of an organism

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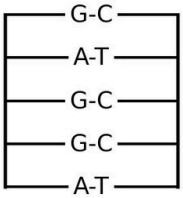
14 **What does a gene control?**

- **A** the number of chromosomes
- **B** the size of the cell
- **C** the order of amino acids
- **D** the rate of cell division

Understand It with Pulse | Flag a mistake

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



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

Understand It with Pulse | Flag a mistake

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

A 25%

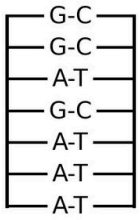
B 0%

C 50%

D 75%

Understand It with Pulse | Flag a mistake

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



- **A** 6
- **B** 7
- **C** 4
- **D** 3

Understand It with Pulse | Flag a mistake

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

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

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

A 25%

B 35%

C 15%

D 75%

Understand It with Pulse | Flag a mistake

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

A they live in the same house

B they have the same genes

C they eat the same food

D they were born together

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21 **What causes Huntington disease?**

A a recessive allele that acts at birth

B a dominant allele acting late

C a missing chromosome

D a viral infection of the brain

Understand It with Pulse | Flag a mistake

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

A 1/2

B 1/4

C 1

D 3/4

Understand It with Pulse | Flag a mistake

23 **Which animal was the first cloned from an adult cell?**

- A a laboratory mouse
- B Dolly the sheep
- C a farm cow
- D a pet dog

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24 **What is a gene bank?**

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

Understand It with Pulse | Flag a mistake

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

A it raises difficult choices

B it always harms the embryo badly

C it changes the genes of the parents

D it guarantees a healthy baby

Understand It with Pulse | Flag a mistake

ANSWER KEY

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

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