ENGLAND GCSE COMBINED SCIENCE 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 **Horses eat grass. What trophic level are horses?**

- A decomposers
- B primary consumers
- C secondary consumers
- D producers

Understand It with Pulse | Flag a mistake

2 **Eggs can carry Salmonella bacteria. What should you do before eating eggs?**

- A leave them in the sun
- B wash them in cold water
- C cook them thoroughly
- D eat them raw

Understand It with Pulse | Flag a mistake

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

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

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

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

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5 **Rabbits in a population show different fur colours. What is this called?**

A evolution

B selection

C variation

D mutation

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

A white blood cells

B an antibiotic

C a dead or weakened pathogen

D a live dangerous pathogen that causes disease

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7 **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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8 **What is embryo screening?**

A choosing the sex of the baby

B testing an adult for a disease

C testing an embryo for alleles

D cloning an embryo in a laboratory

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

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

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

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

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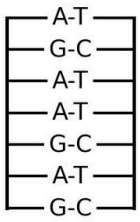
11 **The diagram shows a short section of DNA. How many base pairs are there in total?**



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

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

- **A** from an egg cell
- **B** from an embryo cell
- **C** from an adult cell
- **D** from a sperm cell

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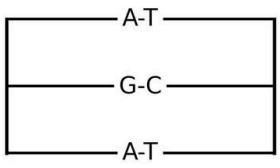
13 **The diagram shows a short section of DNA. How many adenine-thymine pairs are there?**



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

Understand It with Pulse | Flag a mistake

14 **Which base pairs with adenine in DNA?**

- **A** guanine
- **B** cytosine
- **C** thymine
- **D** uracil

Understand It with Pulse | Flag a mistake

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

A it is junk with no function at all

B it copies the whole genome

C it controls genes switching on

D it makes proteins directly

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16 **How many chromosomes does a human body cell have?**

A 46

B 92

C 23

D 12

Understand It with Pulse | Flag a mistake

17 **What is a clone?**

A an organism genetically identical to another

B a new species

C an organism that looks similar to another organism

D a twin

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

A 15%

B 75%

C 25%

D 35%

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19 **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 3/4
- C 1
- D 1/4

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

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

Understand It with Pulse | Flag a mistake

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

A polydactyly

B Huntington's disease

C cystic fibrosis

D Down's syndrome

Understand It with Pulse | Flag a mistake

22 **What is a genome?**

A all the proteins of an organism

B all the DNA of an organism

C all the cells of an organism

D all the genes on one chromosome

Understand It with Pulse | Flag a mistake

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

A it mixes genes from two parents

B it changes the number of chromosomes

C it copies one parent exactly

D it stops mutations

Understand It with Pulse | Flag a mistake

24 **What is a gene bank?**

A a hospital for genetic disorders

B a laboratory for cloning

C a store of seeds or genes

D a bank that stores money

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25

What causes cystic fibrosis?

A two recessive alleles

B a dominant allele

C an infection in the lungs

D a mutation in the sex chromosomes

Understand It with Pulse

Flag a mistake

ANSWER KEY

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

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