ENGLAND GCSE BIOLOGY OCR GATEWAY HIGHER · UNIT 5 · 25 QUESTIONS

Genes, Inheritance and Selection — 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 is an insect. How many legs does it have?**

- **A** 8
- **B** 10
- **C** 6
- **D** 4

Understand It with Pulse | Flag a mistake

2 **Rabbits with white fur survive better in snow. What is this an example of?**

A artificial selection

B mutation

C extinction

D natural selection

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

A different species

B different alleles

C different habitats

D different diets

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

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

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

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

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6 **A sunflower turns its head to follow the Sun. What is this a response to?**

- A touch
- B gravity
- C light
- D water

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7 **What is embryo screening?**

- A choosing the sex of the baby
- B testing an adult for a disease
- C cloning an embryo in a laboratory
- D testing an embryo for alleles

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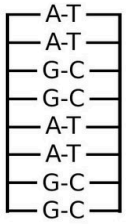
8 **The diagram shows a short section of DNA. How many base pairs are there in total?**



- **A** 8
- **B** 10
- **C** 7
- **D** 9

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9 **What does a gene control?**

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

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10 **What is selective breeding?**

A breeding organisms at random without choosing

B letting organisms breed naturally

C breeding organisms with wanted traits

D breeding organisms in the wild

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

A 1/2

B 3/4

C 1/4

D 1

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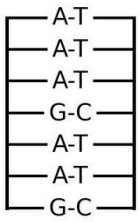
12 **The diagram shows a short section of DNA. How many adenine-thymine pairs are there?**



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

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

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

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

A it stops mutations

B it mixes genes from two parents

C it changes the number of chromosomes

D it copies one parent exactly

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

A in the cell membrane

B in the nucleus

C in the mitochondria only

D in the cytoplasm

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16 **What is a binomial name?**

A the common name of the organism

B the family and order of the organism

C genus plus species

D the kingdom and phylum of the organism

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17 **What do fossils show about life on Earth?**

A fossils show the first life on Earth

B fossils show species never change

C fossils prove every species alive today

D fossils show species changing

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

A 50%

B 25%

C 0%

D 75%

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

A Down's syndrome

B polydactyly

C Huntington's disease

D cystic fibrosis

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

A stop washing hands

B share antibiotics

C only use antibiotics when needed

D use antibiotics for every illness

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

A 75%

B 25%

C 15%

D 35%

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

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

Understand It with Pulse | Flag a mistake

23 **What causes polydactyly?**

- **A** an extra chromosome
- **B** a recessive allele
- **C** a missing chromosome
- **D** a dominant allele

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

A it copies the whole genome

B it is junk with no function at all

C it controls genes switching on

D it makes proteins directly

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25 **What is a gene bank?**

A a laboratory for cloning

B a hospital for genetic disorders

C a store of seeds or genes

D a bank that stores money

Understand It with Pulse | Flag a mistake

ANSWER KEY

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

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