ARIZONA BIOLOGY · UNIT 2 · 10 QUESTIONS

Genetics and Heredity — 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 to let Brett know so he can fix it.

1 **Sickle cell disease is caused by a recessive allele, so a child shows the disease only if the child inherits the allele from**

A The mother only

B The father only

C Neither parent

D Both parents

Understand It with Pulse | Flag a mistake

2 **In humans the sex of a child is determined by whether the sperm cell carries an X chromosome or a**

- A Autosome
- B Mitochondrion
- C Y chromosome
- D Second X chromosome

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3 **A karyotype is a picture of all the chromosomes in a cell arranged by size and shape, and it can reveal**

- A Protein sequences
- B Extra or missing chromosomes
- C Blood type
- D Eye color genes

Understand It with Pulse | Flag a mistake

4 **Selective breeding changes a population by choosing parents with desired traits over many**

A Generations

B Days only

C Cells

D Mutations

Understand It with Pulse | Flag a mistake

5 **Genetic engineering can insert a gene from one organism into another organism so the receiving organism can produce a**

A New chromosome number

B New species instantly

C New cell wall

D New protein

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6 **A DNA fingerprint is useful for identification because the pattern of DNA fragments differs between**

- A All members of a species
- B Parents and children only
- C Unrelated individuals
- D Identical twins only

Understand It with Pulse | Flag a mistake

7 **Environmental factors can affect how genes are expressed, as when genetically identical plants grow to different heights in different**

- A Kingdoms
- B Light conditions
- C Chromosome numbers
- D Species

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8 **A mutation that does not change the amino acid coded for is called a silent mutation because the resulting protein is**

- A Unchanged
- B Always destroyed
- C Doubled in size
- D Moved to the nucleus

Understand It with Pulse | Flag a mistake

9 **Cloning produces genetically identical copies of an organism from a single**

- A Mutated gene
- B Fertilized egg only
- C Bacterial plasmid only
- D Donor cell

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10 **A heterozygous tall plant is crossed with a short plant, where T is tall and t is short The expected number of tall plants out of 400 offspring is**

ANSWER

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	D	**5.**	D	**9.**	D
2.	D	**6.**	C	**10.**	200
3.	B	**7.**	B		
4.	A	**8.**	A		

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