

IGCSE Biology

Name: _____ Score: _____

1. A gene is:
 - ☐ a section of DNA that codes for a protein
 - ☐ a whole chromosome
 - ☐ a type of cell
 - ☐ a sugar
2. The shape of a DNA molecule is a:
 - ☐ double helix
 - ☐ single straight line
 - ☐ circle
 - ☐ square
3. Mitosis produces daughter cells that are:
 - ☐ genetically identical to the parent
 - ☐ all different
 - ☐ gametes
 - ☐ half the chromosome number
4. Meiosis produces how many cells from one parent cell?
 - ☐ four
 - ☐ two
 - ☐ one
 - ☐ eight
5. An allele is:
 - ☐ a version of a gene
 - ☐ a whole chromosome
 - ☐ a protein
 - ☐ a cell
6. How many chromosomes are in a human body cell?

7. How many chromosomes are in a human gamete?

8. Mitosis is used for: (Select all that apply.)

- ☐ growth
- ☐ repair of tissue
- ☐ asexual reproduction
- ☐ making gametes

Tick every correct option.

9. In a Bb x Bb cross, out of 4 offspring, how many show the recessive trait?

10. The order of bases in a gene determines the protein made.

- ☐ True ☐ False

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1. **a section of DNA that codes for a protein**

A gene codes for one protein.

2. **double helix**

DNA is a double helix — two twisted strands.

3. **genetically identical to the parent**

Mitosis makes identical copies.

4. **four**

Meiosis makes four gametes.

5. **a version of a gene**

Alleles are different versions of a gene.

6. **46**

Body cells have 46 chromosomes (23 pairs).

7. **23**

Gametes have half — 23 — so fertilisation restores 46.

8. **growth; repair of tissue; asexual reproduction**

Gametes are made by meiosis, not mitosis.

9. **1**

Only bb (1 in 4) shows the recessive trait.

10. **True**

Base order sets the amino acid order, hence the protein.