

IGCSE Biology

Name: _____ Score: _____

1. A gene is:

- ☐ a whole chromosome
- ☐ a type of cell
- ☐ a sugar
- ☐ a section of DNA that codes for a protein

2. The shape of a DNA molecule is a:

- ☐ double helix
- ☐ single straight line
- ☐ circle
- ☐ square

3. Mitosis produces daughter cells that are:

- ☐ half the chromosome number
- ☐ gametes
- ☐ all different
- ☐ genetically identical to the parent

4. Meiosis produces how many cells from one parent cell?

- ☐ four
- ☐ two
- ☐ eight
- ☐ one

5. An allele is:

- ☐ a whole chromosome
- ☐ a protein
- ☐ a cell
- ☐ a version of a gene

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

7. Recessive sex-linked conditions affect females more often than males.

☐ True ☐ False

8. How many chromosomes are in a human body cell?

9. The number of genes on a chromosome, not the order of bases, determines the protein made.

☐ True ☐ False

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

☐ asexual reproduction

☐ growth

☐ making gametes

☐ repair of tissue

Tick every correct option.

IGCSE Biology

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. 1

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

7. False

False. Males have only one X chromosome, so a single recessive allele is expressed; females need two copies. These conditions affect males more often.

8. 46

Body cells have 46 chromosomes (23 pairs).

9. False

False. The order of bases in a gene sets the order of amino acids, and so determines which protein is made.

10. asexual reproduction; growth; repair of tissue

Gametes are made by meiosis, not mitosis.