

IGCSE Biology

Name: _____ Score: _____

1. Which part of the cell contains DNA and controls the cell?
 - ☐ nucleus
 - ☐ cytoplasm
 - ☐ cell membrane
 - ☐ mitochondria
2. A red blood cell is specialised to carry oxygen. It has:
 - ☐ a tail
 - ☐ no nucleus and lots of haemoglobin
 - ☐ chloroplasts
 - ☐ a large nucleus
3. Magnification is calculated as:
 - ☐ image size + actual size
 - ☐ image size $\div$ actual size
 - ☐ image size $\times$ actual size
 - ☐ actual size $\div$ image size
4. Which part releases energy by respiration?
 - ☐ cell wall
 - ☐ vacuole
 - ☐ nucleus
 - ☐ mitochondria
5. A group of similar cells working together is a:
 - ☐ organism
 - ☐ organ
 - ☐ organ system
 - ☐ tissue
6. An image is 40 mm across and the real object is 0.5 mm. What is the magnification?

7. Compared with a typical animal cell, which extra structures are shown in a typical photosynthetic plant cell? Select all that apply.

☐ chloroplasts

☐ cell wall

☐ large vacuole

☐ nucleus

Tick every correct option.

8. A root hair cell's long shape gives it a large surface area for absorbing water.

☐ True ☐ False

9. An image is 60 mm and the magnification is $\times 300$. What is the actual size (mm)?

10. The plant cell part made of cellulose that gives support is the cell _____.

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1. **nucleus**

The nucleus holds DNA and controls the cell.

2. **no nucleus and lots of haemoglobin**

No nucleus leaves more room for haemoglobin, which carries oxygen.

3. **image size ÷ actual size**

Magnification = image ÷ actual.

4. **mitochondria**

Mitochondria are the site of aerobic respiration.

5. **tissue**

A tissue is a group of similar cells.

6. **80**

$40 \div 0.5 = \times 80$.

7. **chloroplasts; cell wall; large vacuole**

A photosynthetic plant cell has a cellulose wall, chloroplasts and a large permanent vacuole. The nucleus is shared with a typical animal cell. This comparison does not claim that bacteria lack cell walls.

8. **True**

Its structure fits its function of absorption.

9. **0.2**

Actual = $60 \div 300 = 0.2$ mm.

10. **wall**

The cellulose cell wall supports and shapes plant cells.