

2. Organisation of the organism

Starter Quiz

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 ÷ actual size
- ☐ image size × actual size
- ☐ actual size ÷ 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 ×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.