ENGLAND GCSE BIOLOGY AQA HIGHER · UNIT 1 · 25 QUESTIONS

Cell Biology — 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 so it can be fixed.

1 **A peach is a fruit. Which part of the flower does it develop from?**

- A the petal
- B the anther
- C the stigma
- D the ovary

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2 **Hens' eggs have a large yolk. The yolk is one very large cell. Which part of the cell is the yolk?**

- A the nucleus
- B the cell membrane, controlling what enters
- C the cytoplasm with stored food
- D the mitochondria

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3 **A thermometer measures temperature in degrees Celsius. What is the freezing point of water on this scale?**

- A 0
- B 100
- C 32
- D 10

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4 **Glass marbles are shaken in a tray. What does this model?**

- A particles disappearing completely
- B particles gaining energy
- C particles bonding together
- D particles freezing into place

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5 **A sunflower leaf cell contains chloroplasts. What is the job of the chloroplasts?**

- A to absorb light for photosynthesis
- B to store water as cell sap
- C to control the cell
- D to release energy in respiration from glucose

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6 **Potatoes left in salty water go soft. Why?**

- A water leaves the cells
- B salt enters the cells
- C the cells divide
- D water enters the cells

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7 **What is differentiation?**

A a cell moving to a new place

B a cell growing larger and larger

C a cell dividing into two identical cells

D a cell becoming specialised

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8 **Which cell contains chloroplasts?**

A a leaf cell

B a muscle cell

C a red blood cell

D a nerve cell

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9 **Why are school cultures incubated at 25 degrees Celsius, not 37 degrees Celsius?**

- **A** to avoid growing microbes that harm humans
- **B** to stop the agar from melting
- **C** to save electricity in the laboratory
- **D** to make the bacteria grow more slowly for counting

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10 **A single bacterium divides every 20 minutes. How many bacteria are there after 2 divisions?**

- **A** 8
- **B** 2
- **C** 6
- **D** 4

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11 **In which part of the cell cycle does the DNA copy itself?**

- **A** after the cell splits
- **B** before mitosis starts
- **C** when the cell dies
- **D** during cell division only

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12 **A cell is 12 mm long in a photograph. Its real length is 60 micrometres. What is the magnification?**

- **A** × 2000
- **B** × 200
- **C** × 400
- **D** × 20

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13 **A piece of potato weighs 6 g. After soaking in pure water it weighs 6.4 g. What is the percentage increase in mass?**

- A 6.7%
- B 3.35%
- C 13.4%
- D 11.7%

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14 **A cell of real length 0.01 mm is viewed at a magnification of 400 times. How long is the image of the cell?**

- A 9 mm
- B 4 mm
- C 8 mm
- D 2 mm

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15 **Which part of a light microscope holds the slide?**

A the eyepiece

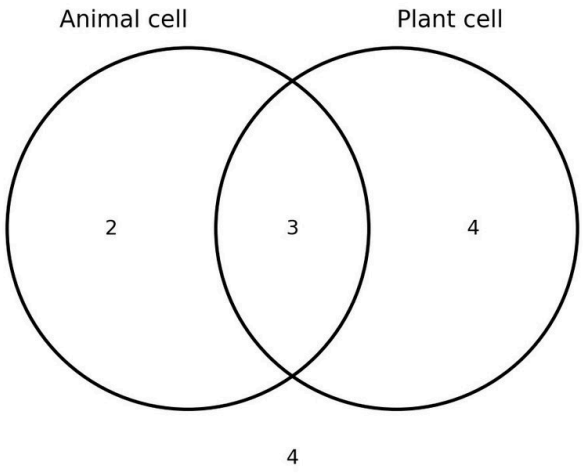
B the stage

C the objective lens

D the mirror

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16 **The Venn diagram shows features of animal cells and plant cells. How many features are found in both types of cell?**



A 2

B 5

C 4

D 3

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17 **A cheek cell has no cell wall and no chloroplasts. What does this show?**

A it is a dead cell

B it is an animal cell

C it is a bacterial cell

D it is a plant cell

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18 **Which process moves oxygen into a cell from the air?**

A osmosis

B active transport

C respiration

D diffusion

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19 **Why are embryonic stem cells useful in medicine?**

A they divide only once and then stop

B they are already specialised

C they carry no DNA at all

D they can become any cell type

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20 **Which cell has a cell wall made of cellulose?**

A a sperm cell

B a bacterial cell

C a plant cell

D an animal cell

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21 **What does agar provide for bacteria in a culture?**

- A light for photosynthesis
- B nutrients for growth
- C a source of water and nothing else
- D oxygen for respiration only

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22 **A single bacterium divides every 20 minutes. How many bacteria are there after 5 divisions?**

- A 16
- B 64
- C 32
- D 34

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23 **A cell is 12 mm long in a photograph. Its real length is 20 micrometres. What is the magnification?**

- **A** × 600
- **B** × 6000
- **C** × 1200
- **D** × 60

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24 **A piece of potato weighs 4 g. After soaking in pure water it weighs 4.5 g. What is the percentage increase in mass?**

- **A** 6.25%
- **B** 12.5%
- **C** 17.5%
- **D** 25%

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25

Which part of a plant cell contains cell sap?

A the nucleus

B the vacuole

C the cytoplasm

D the mitochondria

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ANSWER KEY

1.	D	**10.**	D	**19.**	D
2.	C	**11.**	B	**20.**	C
3.	A	**12.**	B	**21.**	B
4.	B	**13.**	A	**22.**	C
5.	A	**14.**	B	**23.**	A
6.	A	**15.**	B	**24.**	B
7.	D	**16.**	D	**25.**	B
8.	A	**17.**	B		
9.	A	**18.**	D		

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