ENGLAND GCSE BIOLOGY AQA FOUNDATION · 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 **Glass marbles in a tray are used as a model for particles in a solid. What do the marbles show?**

- A particles vibrate in fixed positions
- B particles move freely through space
- C particles are far apart from each other
- D particles flow past each other easily

Understand It with Pulse | Flag a mistake

2 **Potatoes are placed in pure water. What happens to the potato cells?**

- A they gain water
- B they stay the same
- C they lose water
- D they burst

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3 **A thermometer is placed in hot water. What happens to the liquid inside the thermometer?**

- A it freezes
- B it evaporates
- C it expands
- D it contracts

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4 **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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5 **A peach is a fruit. Which part of the flower does it develop from?**

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

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

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

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7 **A cell is 6 mm long in a photograph. Its real length is 0.03 mm. What is the magnification?**

- A × 300
- B × 200
- C × 400
- D × 100

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8 **Two antibiotic discs give zones of inhibition of 8 mm and 14 mm. Which antibiotic is more effective?**

- A they are equally effective
- B the 8 mm one
- C the 14 mm one
- D neither, zones do not show this

Understand It with Pulse | Flag a mistake

9 **A single bacterium divides every 20 minutes. How many bacteria are there after 3 divisions?**

- A 16
- B 10
- C 4
- D 8

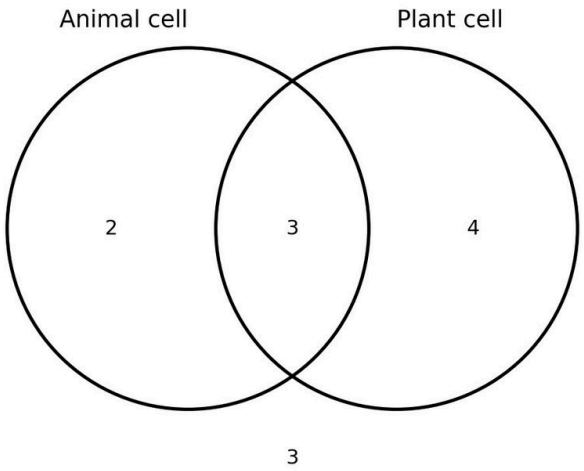
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10 **Why are embryonic stem cells useful in medicine?**

- A they carry no DNA at all
- B they are already specialised
- C they divide only once and then stop
- D they can become any cell type

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



A 3

B 2

C 5

D 4

Understand It with Pulse

Flag a mistake

12 **A microscope has an eyepiece lens of 10 times and an objective lens of 40 times. What is the total magnification?**

- A × 50
- B × 400
- C × 4000
- D × 40

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13 **Which cell contains chloroplasts?**

- A a muscle cell
- B a nerve cell
- C a red blood cell
- D a leaf cell

Understand It with Pulse | Flag a mistake

14 **Which part of a cell is where most of the chemical reactions happen?**

A the ribosome

B the cell membrane

C the nucleus

D the cytoplasm

Understand It with Pulse | Flag a mistake

15 **A red blood cell in pure water will do what?**

A stay the same size

B shrink and shrivel

C divide in two

D swell and burst

Understand It with Pulse | Flag a mistake

16 **A cell of real length 0.02 mm is viewed at a magnification of 1000 times. How long is the image of the cell?**

- A 25 mm
- B 10 mm
- C 40 mm
- D 20 mm

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17 **A piece of potato weighs 8 g. After soaking in pure water it weighs 8.5 g. What is the percentage increase in mass?**

- A 3.1%
- B 6.2%
- C 12.4%
- D 11.2%

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18 **A body cell with 46 chromosomes divides by mitosis. How many chromosomes does each daughter cell have?**

- A 46
- B 23
- C 12
- D 92

Understand It with Pulse | Flag a mistake

19 **Why is a coverslip lowered carefully onto a slide?**

- A to magnify the cells underneath
- B to avoid trapping air bubbles
- C to squash the cells flat
- D to keep the stain from drying

Understand It with Pulse | Flag a mistake

20 **What is plasmolysis?**

- A a cell dividing into two cells
- B a plant cell bursting in water
- C a plant cell shrinking
- D a root hair cell absorbing minerals

Understand It with Pulse | Flag a mistake

21 **A cell is 24 mm long in a photograph. Its real length is 0.03 mm. What is the magnification?**

- A × 400
- B × 800
- C × 1600
- D × 900

Understand It with Pulse | Flag a mistake

22 **Why are cultures grown near a Bunsen burner flame?**

- **A** the flame lights the bench
- **B** rising air keeps microbes away
- **C** the flame warms the bacteria so they grow faster
- **D** the flame dries the agar

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23 **A single bacterium divides every 20 minutes. How many bacteria are there after 6 divisions?**

- **A** 128
- **B** 66
- **C** 32
- **D** 64

Understand It with Pulse | Flag a mistake

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

A a plant cell

B an animal cell

C a bacterial cell

D a sperm cell

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25 **Which part of a plant cell contains cell sap?**

A the mitochondria

B the vacuole

C the cytoplasm

D the nucleus

Understand It with Pulse | Flag a mistake

ANSWER KEY

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

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