ENGLAND GCSE BIOLOGY EDEXCEL HIGHER · UNIT 1 · 25 QUESTIONS

Key Concepts in 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 **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 mitochondria
- C the cell membrane, controlling what enters
- D the cytoplasm with stored food

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

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

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3 **A peach contains a stone. What is inside the stone?**

- A a flower
- B a leaf
- C a seed
- D a root

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4 **Red apples are cut and left in the air. They turn brown because an enzyme in the apple reacts with oxygen. What would slow this browning down?**

- A putting them in a fridge
- B warming them up
- C leaving them in sunlight all day
- D cutting them smaller

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5 **Glass marbles are used to model atoms. What is a limitation of the model?**

- A marbles are too small to see properly
- B marbles cannot be counted accurately at all
- C marbles are much bigger than atoms
- D marbles are the wrong colour for atoms

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

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

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7 **A school lunch tray holds a bread roll, cheese and an apple. Which food test would show starch in the bread roll?**

- A Benedict's turns brick red
- B Biuret turns purple
- C Sudan III turns red
- D iodine turns blue-black

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8 **What is glucose used to make in cell walls?**

- A cellulose
- B glycogen
- C amino acids
- D starch

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9 **A cell is 12 mm long in a photograph. Its real length is 30 micrometres. What is the magnification?**

- A × 4000
- B × 800
- C × 40
- D × 400

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10 **A food contains 150 kJ of energy per 100 g. How much energy is in 200 g of the food?**

- A 250 kJ
- B 600 kJ
- C 350 kJ
- D 300 kJ

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11 **An enzyme reaction is fastest at 20 degrees Celsius. At 40 degrees Celsius the rate is much lower. Why?**

- A the enzyme is denatured
- B the enzyme works faster
- C the enzyme is digested
- D the substrate runs out

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12 **What happens to lactic acid after exercise?**

- A it is breathed out
- B it is broken down using oxygen
- C it stays in the muscles forever
- D it turns into glucose at once

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13 **A cell of real length 0.01 mm is viewed at a magnification of 1000 times. How long is the image of the cell?**

- A 10 mm
- B 5 mm
- C 20 mm
- D 15 mm

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14 **Photosynthesis produces oxygen at a rate of 3 cm cubed per minute. How much oxygen is produced in 20 minutes?**

- A 60 cm^3
- B 70 cm^3
- C 50 cm^3
- D 120 cm^3

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15 **Where does aerobic respiration happen?**

A in the vacuole

B in the chloroplasts

C in the mitochondria

D in the nucleus

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16 **A piece of potato weighs 4 g. After soaking in pure water it weighs 4.8 g. What is the percentage increase in mass?**

A 40%

B 10%

C 25%

D 20%

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17 **Which structure is found in a bacterial cell but not in an animal cell?**

A a mitochondrion

B a ribosome

C a nucleus

D a plasmid

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18 **Which of these uses active transport?**

A oxygen entering the lungs

B taking in minerals from soil

C carbon dioxide leaving a leaf

D water entering a root

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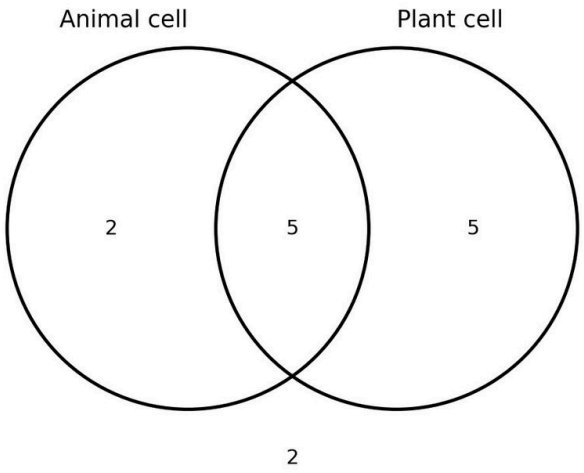
19 **The Venn diagram shows features of animal cells and plant cells. How many features are found in both types of cell?**



A 4

B 5

C 7

D 6

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Flag a mistake

20 **What is the lock and key model?**

- **A** an enzyme fits one substrate
- **B** a substrate fits any enzyme
- **C** an enzyme fits any substrate
- **D** enzymes work at any pH

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21 **A cell is 12 mm long in a photograph. Its real length is 0.04 mm. What is the magnification?**

- **A** × 300
- **B** × 150
- **C** × 400
- **D** × 600

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22 **A plant cell in pure water becomes turgid. What does turgid mean?**

- A dead and dry
- B swollen and firm
- C empty and flat
- D shrunken and soft

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

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

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24 **In the microscopy required practical, why is iodine stain added to onion cells?**

- **A** to make the nucleus easy to see
- **B** to magnify the cells
- **C** to keep the cells alive for longer
- **D** to kill the onion cells

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25 **How is lactic acid removed after exercise?**

- **A** it is passed out in urine at once
- **B** it is carried to the liver
- **C** it is stored in the muscles
- **D** it is breathed out through the lungs

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ANSWER KEY

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

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