ENGLAND GCSE BIOLOGY AQA FOUNDATION · UNIT 4 · 25 QUESTIONS

Bioenergetics — 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 forest is cut down. What happens to the carbon stored in the trees?**

- A it is stored forever
- B it disappears
- C it turns to oxygen
- D it is released

Understand It with Pulse | Flag a mistake

2 **Red apples provide energy. Which nutrient in apples provides most energy?**

- A carbohydrates
- B fat, for insulation
- C fibre, for digestion
- D protein, for growth

Understand It with Pulse | Flag a mistake

3 **A sunflower is left in bright light. Its leaves photosynthesise faster than in dim light. What else would increase the rate?**

- A more carbon dioxide in the air
- B less chlorophyll in the leaves of the plant
- C a lower temperature
- D less water in the soil

Understand It with Pulse | Flag a mistake

4 **A cheese pizza contains cheese made from milk. What is milk rich in?**

- A iron
- B vitamin C
- C calcium
- D fibre

Understand It with Pulse | Flag a mistake

5 **A sandwich provides energy. Which process releases energy from food in cells?**

- A respiration
- B digestion
- C photosynthesis
- D fermentation

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6 **A school lunch tray holds a meal. Why do we need food?**

- A to feel full after eating
- B to stay awake at night
- C for energy and growth
- D for fun only, not for health

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7

What is a limiting factor for photosynthesis?

A the factor that stops all photosynthesis

B the factor that only affects respiration

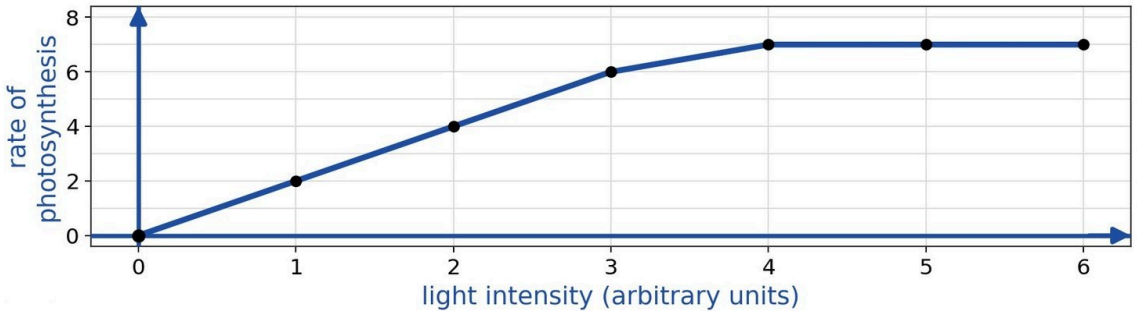
C the factor in shortest supply

D the factor present in the largest amount

Understand It with Pulse

Flag a mistake

8 **The graph shows the rate of photosynthesis at different light intensities. At which light intensity does the rate first reach its maximum?**



A 2

B 6

C 3

D 4

Understand It with Pulse | Flag a mistake

9 **Photosynthesis produces oxygen at a rate of 5 cm cubed per minute. How much oxygen is produced in 20 minutes?**

- A 90 cm^3
- B 100 cm^3
- C 200 cm^3
- D 110 cm^3

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10 **What is the basal metabolic rate?**

- A energy used at rest
- B energy used in exercise
- C energy from food
- D energy stored as fat

Understand It with Pulse | Flag a mistake

11 **One glucose molecule releases 30 molecules of ATP in respiration. How many ATP molecules are released from 2 glucose molecules?**

- **A** 60
- **B** 90
- **C** 30
- **D** 120

Understand It with Pulse | Flag a mistake

12 **What is the word equation for aerobic respiration?**

- **A** glucose plus oxygen gives lactic acid
- **B** glucose plus oxygen gives carbon dioxide plus water
- **C** carbon dioxide plus water gives glucose plus oxygen
- **D** glucose gives lactic acid

Understand It with Pulse | Flag a mistake

13 **A person breathes 15 times per minute. How many breaths is that in one hour?**

- A 900
- B 1800
- C 840
- D 960

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

15 **Which of these is a use of glucose in a plant?**

A transpiration

B photosynthesis

C pollination

D respiration

Understand It with Pulse | Flag a mistake

16 **A pondweed plant releases 30 bubbles of oxygen in 3 minutes. How many bubbles does it release per minute?**

A 9

B 10

C 11

D 20

Understand It with Pulse | Flag a mistake

17 **A food contains 200 kJ of energy per 100 g. How much energy is in 300 g of the food?**

- A 650 kJ
- B 600 kJ
- C 1200 kJ
- D 550 kJ

Understand It with Pulse | Flag a mistake

18 **Why do muscles ache after hard exercise?**

- A the muscles run out of water
- B oxygen builds up in the muscles
- C lactic acid builds up
- D glucose runs out completely

Understand It with Pulse | Flag a mistake

19 **How can a grower increase crop yield in a greenhouse?**

A by keeping the greenhouse dark

B by cooling the greenhouse down

C by adding carbon dioxide

D by watering less often

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20 **Which part of the plant absorbs light for photosynthesis?**

A the root

B the leaf

C the flower

D the stem

Understand It with Pulse | Flag a mistake

21 **Photosynthesis produces oxygen at a rate of 3 cm cubed per minute. How much oxygen is produced in 10 minutes?**

A 30 cm^3

B 60 cm^3

C 20 cm^3

D 40 cm^3

Understand It with Pulse | Flag a mistake

22 **One glucose molecule releases 30 molecules of ATP in respiration. How many ATP molecules are released from 3 glucose molecules?**

A 90

B 60

C 180

D 120

Understand It with Pulse | Flag a mistake

23 **A person breathes 20 times per minute. How many breaths is that in one hour?**

- A 2400
- B 1140
- C 1200
- D 1260

Understand It with Pulse | Flag a mistake

24 **What happens to excess amino acids in the body?**

- A they are breathed out
- B they become urea
- C they are stored as glycogen
- D they are turned into glucose

Understand It with Pulse | Flag a mistake

25 **What does a plant make from glucose for energy storage in seeds?**

A cellulose

B protein

C lipids

D starch

Understand It with Pulse | Flag a mistake

ANSWER KEY

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

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