ENGLAND GCSE COMBINED SCIENCE EDEXCEL FOUNDATION · UNIT 9 · 25 QUESTIONS

Ecosystems and Material Cycles — 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 **Fishing boats float on water. Why do they float?**

- A they have sails that catch the wind
- B they are made of metal, which floats
- C they are heavy and sink slowly
- D they displace enough water

Understand It with Pulse | Flag a mistake

2 **A forest absorbs carbon dioxide. Which process does this?**

- A decomposition in the soil
- B photosynthesis
- C respiration in the trees
- D combustion of the wood

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3 **Seabirds on a rocky island eat fish. If the fish population falls, what happens to the seabirds?**

- A they eat more fish
- B their numbers rise
- C their numbers fall
- D they move to the sea

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4 **A honeybee is an insect. How many legs does it have?**

- A 10
- B 8
- C 4
- D 6

Understand It with Pulse | Flag a mistake

5 **A river is polluted by fertiliser. What grows too fast in the water?**

- A trees
- B algae
- C fish
- D reeds

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6 **Rabbits breed quickly. What does this mean for the population?**

A it never changes

B it can grow fast

C it always stays small

D it always falls

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7 **What is a quadrat used for?**

A to count every plant exactly

B to measure the height of trees

C to catch small animals

D to estimate a population

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8 **Producers in a food chain hold 100000 kJ of energy. About 10 percent passes to the primary consumers. How much energy reaches them?**

- A 5000 kJ
- B 100000 kJ
- C 10000 kJ
- D 20000 kJ

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9 **What is a producer?**

- A an organism that eats plants
- B an organism that makes its own food
- C an organism that eats animals
- D an organism that breaks down dead matter

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10 **What is biomass?**

A the energy in a food chain

B the number of organisms

C the mass of dead material

D the mass of living material

Understand It with Pulse | Flag a mistake

11 **What do decomposers return to the soil?**

A nutrients

B water

C oxygen

D carbon dioxide

Understand It with Pulse | Flag a mistake

12 **What makes a good compost heap?**

- A dry, warm and sealed
- B warm, moist and airy
- C wet, cold and airless
- D cold, dry and sealed

Understand It with Pulse | Flag a mistake

13 **A quadrat of area 10 square metres contains on average 6 daisies. Estimate the number of daisies in a field of 100 square metres.**

- A 60
- B 30
- C 120
- D 600

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14 **What is one effect of global warming?**

A more ice forms at the poles

B all deserts become wetter

C sea levels rise

D the air holds less water

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15 **Producers in a food chain have a biomass of 2000 kg. About 10 per cent of biomass passes to each level. What is the biomass of the secondary consumers?**

A 40

B 200

C 20

D 2

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16 **A field has 1000 kg of grass. If 5 percent of the energy passes to the rabbits, how much grass biomass supports the rabbits?**

- A 500 kg
- B 100 kg
- C 25 kg
- D 50 kg

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17 **What is a genetically modified crop?**

- A a crop grown without any fertiliser
- B a crop grown in a greenhouse
- C a crop that needs no water
- D a crop with a useful new gene

Understand It with Pulse | Flag a mistake

18 **What is a transect?**

A a square frame on the ground

B a line across a habitat

C a way of counting trees

D a trap for small animals

Understand It with Pulse | Flag a mistake

19 **Producers in a food chain hold 10000 kJ of energy. About 10 percent passes to the primary consumers. How much energy reaches them?**

A 500 kJ

B 2000 kJ

C 10000 kJ

D 1000 kJ

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20 **In a food chain, where does the energy come from?**

A the decomposers

B the consumers

C the soil

D the Sun

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21 **What shape is a pyramid of biomass?**

A narrow at the bottom, wide at the top

B the same width all the way up

C wide at the bottom, narrow at the top

D a circle

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22 **Why are quadrats placed randomly?**

A to find the most organisms

B to save time

C to get a fair sample

D to avoid counting

Understand It with Pulse | Flag a mistake

23 **What is biogas?**

A carbon dioxide from burning

B oxygen released by plants

C nitrogen from the air

D methane made without oxygen

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24 **A quadrat of area 10 square metres contains on average 4 daisies. Estimate the number of daisies in a field of 100 square metres.**

- A 400
- B 20
- C 80
- D 40

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25 **Where is carbon stored long term?**

- A in rain water
- B in fossil fuels
- C in living organisms only
- D in the air as oxygen

Understand It with Pulse | Flag a mistake

ANSWER KEY

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

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