ENGLAND GCSE BIOLOGY OCR TWENTY FIRST CENTURY FOUNDATION · FINAL EXAM · 50 QUESTIONS

Final Exam — 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 tree flowers in spring. What do bees carry between flowers?**

- A seeds
- B pollen
- C water
- D leaves

Understand It with Pulse | Flag a mistake

2 **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

Understand It with Pulse | Flag a mistake

3 **A sunflower makes glucose in its leaves. Which gas does it take in for photosynthesis?**

- A hydrogen gas from the air
- B carbon dioxide
- C oxygen gas from the air
- D nitrogen gas from the air

Understand It with Pulse | Flag a mistake

4 **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

Understand It with Pulse | Flag a mistake

5 **A basketball is thrown up. What happens to its speed as it rises?**

- A it becomes zero
- B it stays the same
- C it decreases
- D it increases

Understand It with Pulse | Flag a mistake

6 **Rabbits in a meadow show variation in fur colour. What causes this variation?**

- A the rabbits' diet only
- B the number of rabbits
- C natural selection only, acting over time
- D different alleles and the environment

Understand It with Pulse | Flag a mistake

7 **In a DNA sample, 20 percent of the bases are adenine. What percent are thymine?**

A 80%

B 30%

C 10%

D 20%

Understand It with Pulse | Flag a mistake

8 **A yellow school bus stops at a station. What happens to its speed?**

A it becomes negative

B it increases

C it stays the same

D it becomes zero

Understand It with Pulse | Flag a mistake

9 **A field has 2000 kg of grass. If 5 percent of the energy passes to the rabbits, how much grass biomass supports the rabbits?**

- A 50 kg
- B 100 kg
- C 1000 kg
- D 200 kg

Understand It with Pulse | Flag a mistake

10 **One glucose molecule releases 30 molecules of ATP in respiration. How many ATP molecules are released from 10 glucose molecules?**

- A 330
- B 270
- C 600
- D 300

Understand It with Pulse | Flag a mistake

11 **In which direction do particles move by diffusion?**

A from high to low concentration

B from large to small

C from cold to hot

D from low to high concentration

Understand It with Pulse | Flag a mistake

12 **What is carbon dioxide?**

A a gas we breathe in

B a gas in fizzy drinks

C a gas from the Sun

D a greenhouse gas

Understand It with Pulse | Flag a mistake

13 **Which bases pair together in DNA?**

A A pairs with A, T pairs with T

B A pairs with C, T pairs with G

C A pairs with G, C pairs with T

D A pairs with T, C pairs with G

Understand It with Pulse | Flag a mistake

14 **Why does a plant with a viral disease photosynthesise less?**

A leaves have less chlorophyll

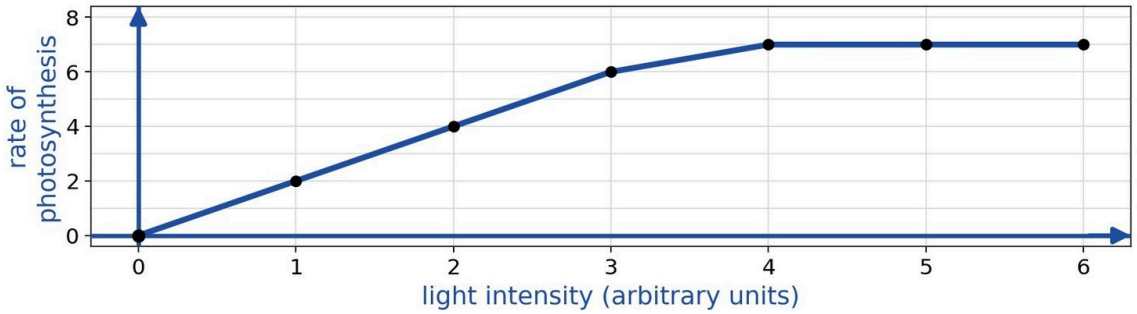
B the stem stops growing

C the flowers fall off first

D the roots stop taking in water

Understand It with Pulse | Flag a mistake

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



A 6

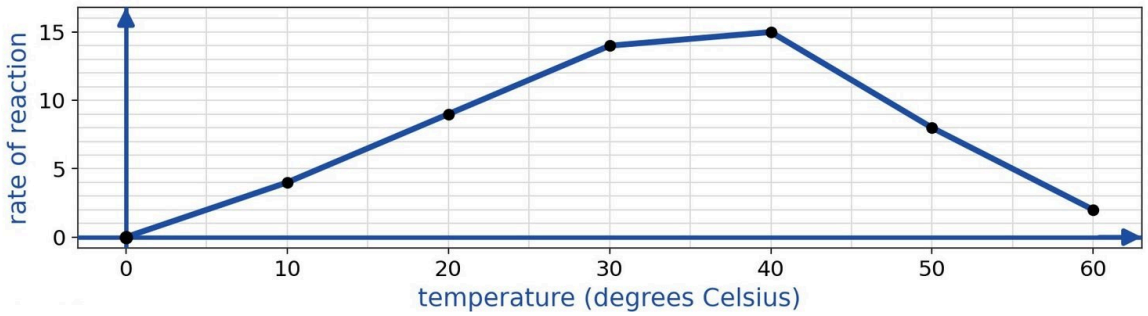
B 2

C 4

D 3

Understand It with Pulse | Flag a mistake

16 **The graph shows the rate of an enzyme reaction at different temperatures. At which temperature is the rate highest?**



A 20

B 40

C 60

D 30

Understand It with Pulse | Flag a mistake

17 **Why do red blood cells have no nucleus?**

A to fight infection better

B to live for longer

C to carry more haemoglobin

D to divide more quickly in the bone marrow

Understand It with Pulse | Flag a mistake

18 **Why is biodiversity important?**

A it gives us more food

B it makes places much prettier to visit

C it keeps ecosystems stable

D it stops all disease

Understand It with Pulse | Flag a mistake

19 **Which disorder is caused by a dominant allele?**

A cystic fibrosis

B sickle cell anaemia

C haemophilia

D polydactyly

Understand It with Pulse | Flag a mistake

20 **A vaccine is given to 17 out of every 20 people in a school of 2000 pupils. How many pupils receive the vaccine?**

A 300

B 170

C 1700

D 1717

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

22 **Lipase breaks lipids down into fatty acids and what else?**

- A starch
- B glycerol
- C amino acids
- D sugars

Understand It with Pulse | Flag a mistake

23 **What happens to blood vessels in the skin when the body is hot?**

- A they widen to lose heat
- B they narrow to keep heat in
- C they move deeper into the skin
- D they close completely

Understand It with Pulse | Flag a mistake

24 **Carbon dioxide is 315 parts per million in the air. How many carbon dioxide molecules are there per million air molecules?**

- A 295
- B 315
- C 3150
- D 31

Understand It with Pulse | Flag a mistake

25 **A brown dog is vaccinated. What does the vaccine contain?**

A an antibiotic

B a dead or weakened pathogen

C white blood cells

D a live dangerous pathogen that causes disease

Understand It with Pulse | Flag a mistake

26 **What are memory cells?**

A cells that digest food

B cells that make red blood cells

C cells that remember a pathogen

D cells that store memories in the brain

Understand It with Pulse | Flag a mistake

27 **A field has 2000 kg of grass. If 10 percent of the energy passes to the rabbits, how much grass biomass supports the rabbits?**

- A 100 kg
- B 2000 kg
- C 400 kg
- D 200 kg

Understand It with Pulse | Flag a mistake

28 **What happens to an enzyme at a very high temperature?**

- A it dissolves in the water
- B it works faster and faster
- C it denatures and stops working
- D it changes into a different enzyme

Understand It with Pulse | Flag a mistake

29 **What does oestrogen do?**

A it triggers ovulation

B it maintains the lining after ovulation

C it thickens the uterus lining

D it stimulates eggs to mature

Understand It with Pulse | Flag a mistake

30 **Who reached the same ideas as Darwin, working separately?**

A Wallace

B Lamarck

C Woese

D Mendel

Understand It with Pulse | Flag a mistake

31 **What does dominant mean in genetics?**

- A the allele shows only with two copies
- B the allele shows even with one copy
- C the allele never shows
- D the allele is on the X chromosome

Understand It with Pulse | Flag a mistake

32 **How does antibiotic resistance spread in bacteria?**

- A resistant bacteria survive and reproduce
- B viruses carry resistance to bacteria
- C antibiotics change the bacteria genes directly
- D bacteria learn to avoid antibiotics

Understand It with Pulse | Flag a mistake

33 **What is metabolism?**

- A the breakdown of food in the gut only
- B the release of energy in respiration
- C all the chemical reactions in the body
- D the building of proteins only

Understand It with Pulse | Flag a mistake

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

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

Understand It with Pulse | Flag a mistake

35 **What causes type 1 diabetes?**

A too much sugar in the diet

B no insulin is made

C the body cells resist insulin

D the liver stores too much glycogen

Understand It with Pulse | Flag a mistake

36 **Which of these is a greenhouse gas?**

A methane

B argon

C nitrogen

D oxygen

Understand It with Pulse | Flag a mistake

37 **In a DNA sample, 25 percent of the bases are adenine. What percent are thymine?**

A 75%

B 25%

C 35%

D 15%

Understand It with Pulse | Flag a mistake

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

A 100

B 32

C 0

D 10

Understand It with Pulse | Flag a mistake

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

A in fossil fuels

B in living organisms only

C in rain water

D in the air as oxygen

Understand It with Pulse | Flag a mistake

40 **A school lunch tray holds a meal with bread, cheese and an apple. Which food group is the bread from?**

A proteins, for growth

B vitamins, for health

C carbohydrates

D fats, for insulation

Understand It with Pulse | Flag a mistake

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

A oxygen entering the lungs

B water entering a root

C taking in minerals from soil

D carbon dioxide leaving a leaf

Understand It with Pulse | Flag a mistake

42 **What is the correct order of classification, from largest to smallest?**

A species, genus, family, order, class, phylum, kingdom

B kingdom, class, phylum, order, genus, family, species

C phylum, kingdom, class, family, order, genus, species

D kingdom, phylum, class, order, family, genus, species

Understand It with Pulse | Flag a mistake

43 **A brown dog is bitten by a tick. Ticks can spread disease. How is the disease spread?**

A by a vector

B through water

C by touch

D through the air

Understand It with Pulse | Flag a mistake

44 **Why should a course of antibiotics be finished?**

A to kill all the bacteria

B to stop side effects

C to prevent an allergic reaction

D to save money on medicine

Understand It with Pulse | Flag a mistake

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

A carbohydrates

B protein, for growth

C fibre, for digestion

D fat, for insulation

Understand It with Pulse | Flag a mistake

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

A 2

B 4

C 8

D 6

Understand It with Pulse | Flag a mistake

47 **A piece of potato weighs 5 g. After soaking in pure water it weighs 5.4 g. What is the percentage increase in mass?**

A 8%

B 16%

C 4%

D 13%

Understand It with Pulse | Flag a mistake

48 **How does deforestation affect the atmosphere?**

A less carbon dioxide is absorbed

B more carbon dioxide is absorbed

C more oxygen is made

D the air gets cleaner

Understand It with Pulse | Flag a mistake

49 **What is a mutation?**

- **A** a change in the number of chromosomes
- **B** a change in the number of cells
- **C** a change in the size of a cell
- **D** a change in the DNA base order

Understand It with Pulse | Flag a mistake

50 **A vaccine is given to 19 out of every 20 people in a school of 2000 pupils. How many pupils receive the vaccine?**

- **A** 1900
- **B** 100
- **C** 190
- **D** 1919

Understand It with Pulse | Flag a mistake

ANSWER KEY

1. B
2. D
3. B
4. D
5. C
6. D
7. D
8. D
9. B
10. D
11. A
12. D
13. D
14. A
15. C
16. B
17. C
18. C
19. D
20. C
21. B
22. B
23. A
24. B
25. B
26. C
27. D
28. C
29. C
30. A
31. B
32. A
33. C
34. C
35. B
36. A
37. B
38. C
39. A
40. C
41. C
42. D
43. A
44. A
45. A
46. B
47. A
48. A
49. D
50. A

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