

Cambridge IGCSE™

BIOLOGY**0610/12**

Paper 1 Multiple Choice (Core)

May/June 2026**45 minutes**

You must answer on the multiple choice answer sheet.

You will need: Multiple choice answer sheet
Soft clean eraser
Soft pencil (type B or HB is recommended)

INSTRUCTIONS

- There are **forty** questions on this paper. Answer **all** questions.
- For each question there are four possible answers **A, B, C** and **D**. Choose the **one** you consider correct and record your choice in soft pencil on the multiple choice answer sheet.
- Follow the instructions on the multiple choice answer sheet.
- Write in soft pencil.
- Write your name, centre number and candidate number on the multiple choice answer sheet in the spaces provided unless this has been done for you.
- Do **not** use correction fluid or tape.
- Do **not** write on any bar codes.
- You may use a calculator.

INFORMATION

- The total mark for this paper is 40.
- Each correct answer will score one mark.
- Any rough working should be done on this question paper.

This document has **16** pages.

1 Which two characteristics of living organisms does phototropism demonstrate?

- A growth and nutrition
- B growth and sensitivity
- C movement and nutrition
- D nutrition and sensitivity

2 What does the binomial system involve?

- A giving all organisms a genus name and a species name
- B placing all organisms into a kingdom
- C placing all organisms into a kingdom and a genus
- D using identifiable features to produce a dichotomous key

3 Which row describes features that all mammals have?

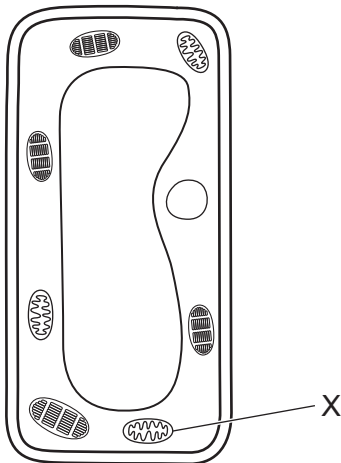
key

✓ = feature present in all mammals

x = feature **not** present in all mammals

	produce milk	have hair	have vertebrae
A	✓	✓	✓
B	✓	✓	x
C	✓	x	✓
D	x	✓	✓

- 4 The diagram shows the structure of a plant cell.



What is organelle X?

- A chloroplast
 - B mitochondrion
 - C nucleus
 - D vacuole
- 5 A student viewed a cross-section of a plant stem using a microscope.

The student drew one vascular bundle from the plant stem.

The diameter of the vascular bundle in the diagram was 36 mm.

The actual diameter of the vascular bundle was 0.60 mm.

What is the magnification of the drawing?

- A $\times 0.017$ B $\times 6$ C $\times 21.6$ D $\times 60$

6 Which row shows correct features of diffusion?

	direction of net movement of particles	always across a cell membrane	requires energy from respiration
A	high concentration to low concentration	no	no
B	high concentration to low concentration	yes	yes
C	low concentration to high concentration	no	yes
D	low concentration to high concentration	yes	no

7 Which smaller molecules is cellulose made from?

- A** amino acids
- B** fatty acids
- C** glucose
- D** glycerol

8 A test was carried out on a solution containing protein.

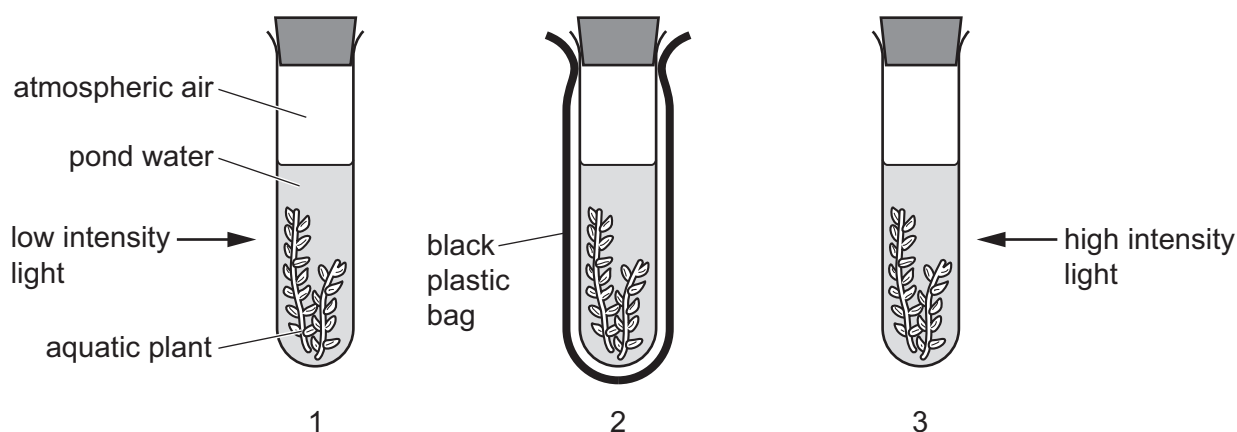
Which row shows the test solution used and the result of the test?

	test solution	result
A	Benedict's	brick-red
B	Benedict's	purple
C	biuret	brick-red
D	biuret	purple

9 Which statement about enzymes is correct?

- A They are catalysts that are changed by the reaction they catalyse.
- B They are catalysts that are important in maintaining the rate of reactions needed to sustain life.
- C They are substances that are denatured at low temperatures.
- D They are substances that are found only in plant and animal cells.

10 The diagram shows the apparatus at the start of an investigation.



The apparatus was left for two hours and then the composition of the air at the top of each test-tube was analysed.

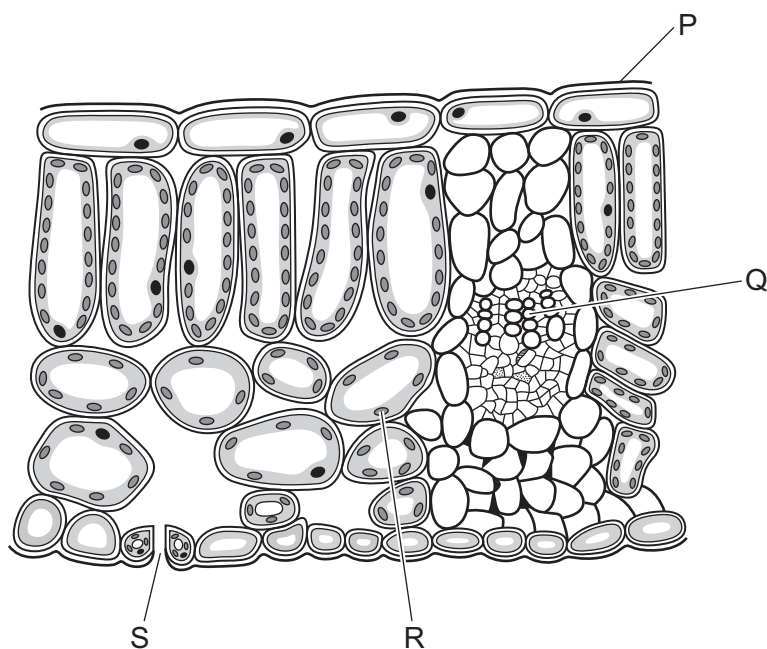
Which row shows the results in the test-tubes?

	test-tube with increase in carbon dioxide concentration	test-tube with large increase in oxygen concentration	test-tube with small increase in oxygen concentration
A	1	2	3
B	2	1	3
C	2	3	1
D	3	1	2

11 What is the function of nectar in plants?

- A to attract insects for pollination
- B to build cell walls
- C to provide an energy store
- D to synthesise proteins

12 The diagram shows a section through a leaf.



What are structures P, Q, R and S?

	P	Q	R	S
A	chloroplast	phloem	palisade tissue	xylem
B	cuticle	xylem	chloroplast	stoma
C	phloem	palisade tissue	cuticle	stoma
D	xylem	chloroplast	phloem	cuticle

13 The table shows the composition of milk R and milk S.

type of milk	carbohydrate /g per 100 g of milk	fat /g per 100 g of milk	protein /g per 100 g of milk
R	57.0	17.0	16.5
S	4.6	8.5	3.3

What is a comparison between milk R and milk S?

- A Milk R contains 50% more fat than milk S.
- B Milk R contains 400% more protein than milk S.
- C Milk S provides more amino acids for growth.
- D Milk S provides more energy for growth.

14 Some parts of the alimentary canal are listed.

- 1 duodenum
- 2 ileum
- 3 mouth
- 4 stomach

In which parts of the alimentary canal is starch digested?

- A** 1 and 3 **B** 1 and 4 **C** 2 and 3 **D** 2 and 4

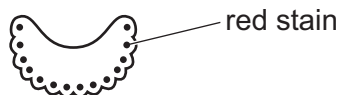
15 A stem of celery was placed in a beaker with a red stain solution.

The diagram shows the appearance of the cut end of the celery stem at the start and after 12 hours.

appearance of cut end
of celery stem at start



appearance of cut end of
celery stem after 12 hours
in red stain solution



Which parts of the celery stem stained red?

- A** epidermal cells
- B** mesophyll cells
- C** phloem
- D** xylem

16 In which list do all three blood vessels carry oxygenated blood?

- A** aorta, pulmonary artery, renal artery
- B** aorta, pulmonary vein, renal artery
- C** vena cava, pulmonary artery, renal vein
- D** vena cava, pulmonary vein, renal vein

17 Which component of blood carries out phagocytosis?

- A** plasma
- B** platelets
- C** red blood cells
- D** white blood cells

18 Good personal hygiene is important to control the spread of disease.

What is an example of good personal hygiene in the kitchen?

- A** cooking food at a high temperature
- B** disposing of waste food in sealed containers
- C** storing uncooked meat in a fridge
- D** washing hands before preparing food

19 What is produced by the human body to protect it against pathogens?

	antibiotics	mucus	red blood cells
A	no	no	yes
B	no	yes	no
C	yes	no	no
D	yes	yes	yes

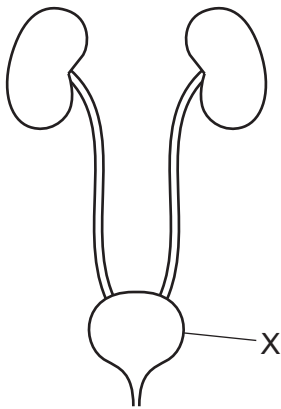
20 What is the sequence of structures through which a molecule of oxygen travels to pass from the air into the blood of a person?

- A** bronchiole → larynx → capillary → alveolus wall
- B** alveolus wall → capillary → bronchiole → larynx
- C** larynx → bronchiole → alveolus wall → capillary
- D** larynx → capillary → bronchiole → alveolus wall

21 Which row describes the aerobic respiration of glucose?

	carbon dioxide produced	enzymes are required	oxygen required	water produced
A	✓	✓	✓	✓
B	✓	✗	✓	✓
C	✗	✓	✗	✓
D	✗	✗	✓	✗

22 The diagram shows the excretory system.



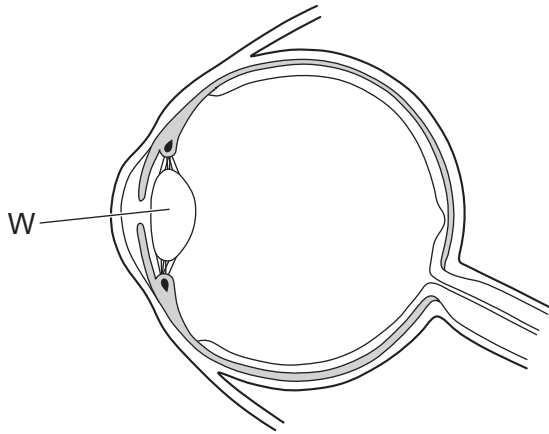
What is structure X?

- A** bladder
- B** kidney
- C** ureter
- D** urethra

23 Which structures form the central nervous system (CNS)?

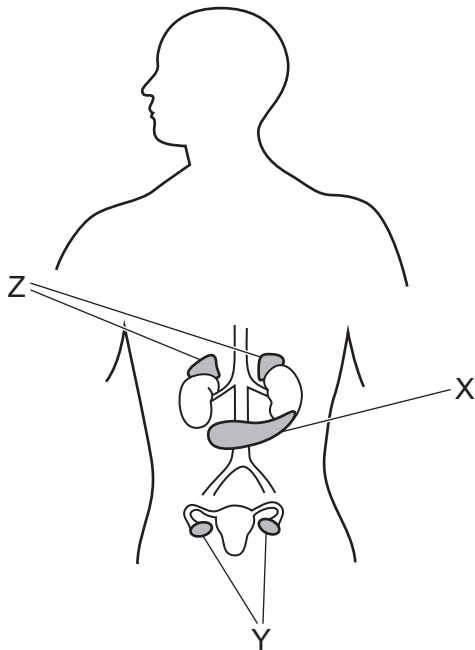
	brain	spinal cord
A	no	no
B	no	yes
C	yes	no
D	yes	yes

24 Which statement describes what happens at W?



- A** Impulses are carried to the brain from the eye.
- B** Light is focused onto the retina.
- C** Light receptors detect light of different colours.
- D** The diameter changes to adapt to changes in light intensity.

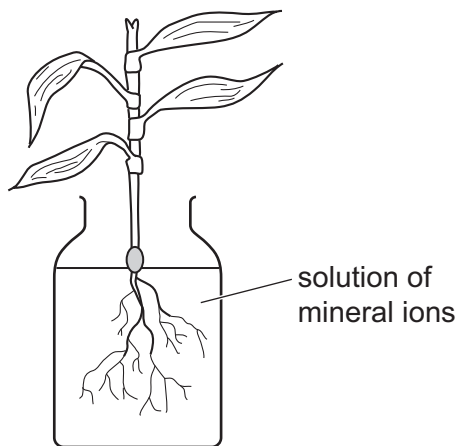
25 The diagram shows some of the endocrine glands in a human body.



Which statement identifies an endocrine gland and the hormone it secretes?

- A** X is the pancreas and secretes insulin.
- B** Y are the adrenal glands and secrete adrenaline.
- C** Y are the testes and secrete testosterone.
- D** Z are the ovaries and secrete oestrogen.

- 26** The diagram shows a bean plant that was grown in a jar for several weeks in the dark.



Which responses are shown by the bean plant root and bean plant shoot?

	bean plant root	bean plant shoot
A	gravitropism	gravitropism
B	gravitropism	phototropism
C	phototropism	gravitropism
D	phototropism	phototropism

- 27** Which row shows why only some infections can be successfully treated with antibiotics?

	antibiotics kill		
	bacteria	resistant bacteria	viruses
A	✓	✓	✗
B	✗	✗	✓
C	✓	✗	✗
D	✗	✓	✓

28 Which two structures are parts of the stamen in an insect-pollinated flower?

- A anther and filament
- B anther and style
- C filament and stigma
- D stigma and style

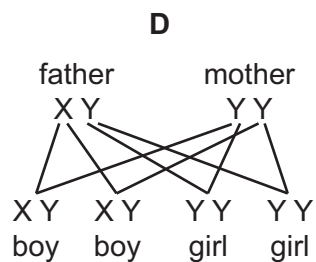
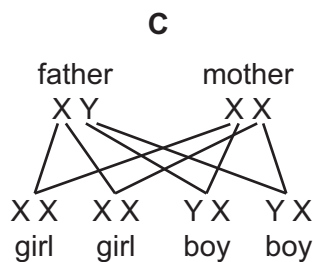
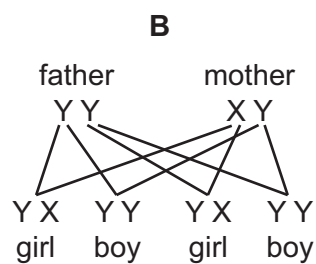
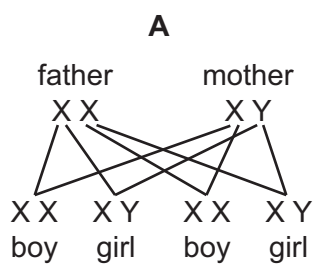
29 How do sperm cells compare with egg cells?

- A larger, less motile, fewer in number than egg cells
- B larger, more motile, greater in number than egg cells
- C smaller, less motile, fewer in number than egg cells
- D smaller, more motile, greater in number than egg cells

30 What is the phenotype of an organism?

- A the combination of alleles
- B the family pedigree
- C the genetic make-up
- D the observable features

31 Which diagram shows the inheritance of sex in humans?



32 What is continuous variation?

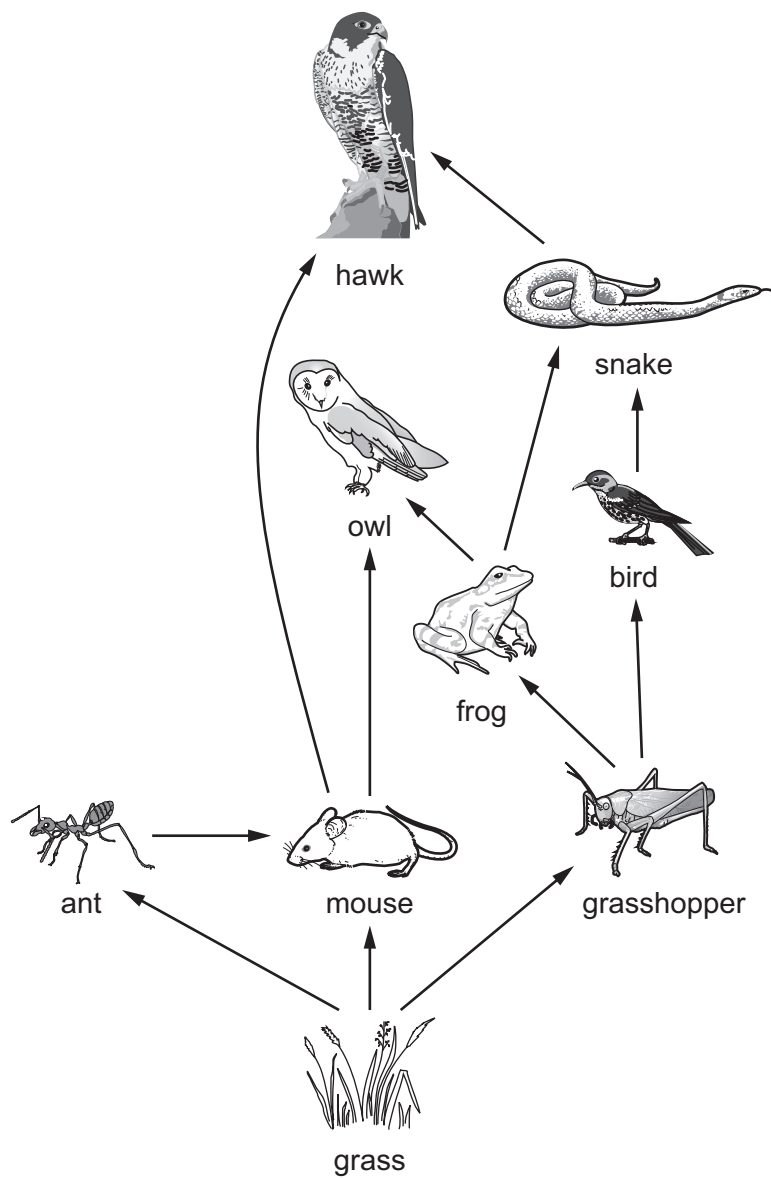
- A** a limited number of phenotypes with no intermediates
- B** a limited number of phenotypes between two extremes
- C** a range of phenotypes with no intermediates
- D** a range of phenotypes between two extremes

33 The diagram shows a food chain.

Which organism is the secondary consumer?



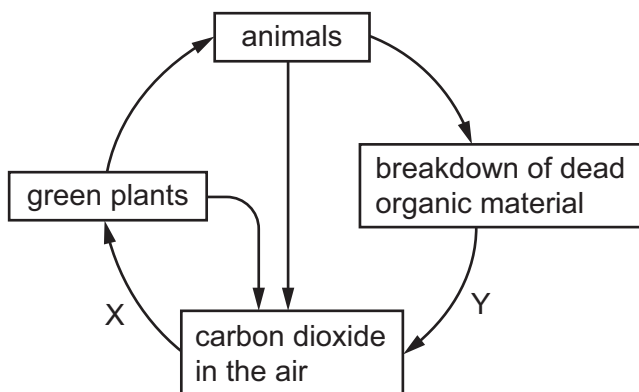
34 The diagram shows a food web.



How many organisms are in trophic level four?

- A** 2 **B** 3 **C** 4 **D** 5

35 The diagram shows part of the carbon cycle.



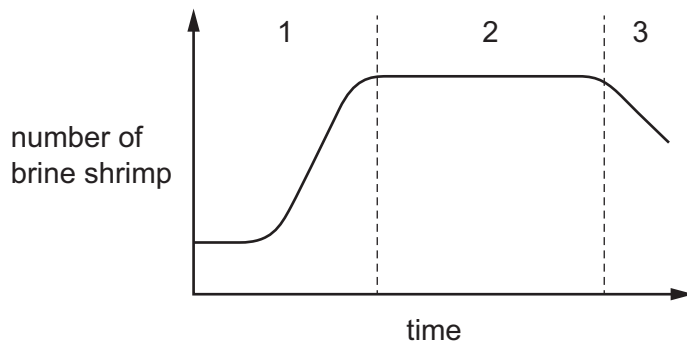
What do X and Y represent?

	X	Y
A	respiration	decomposition
B	decomposition	photosynthesis
C	decomposition	respiration
D	photosynthesis	decomposition

36 What is a community?

- A a group of organisms of one species living in a habitat
- B all members of all species and their non-living environment
- C all populations of different species in an ecosystem
- D the number of different species that live in an area

37 The graph shows the changes in a population of brine shrimp over a period of time.



Over which section or sections is the birth rate greater than the death rate?

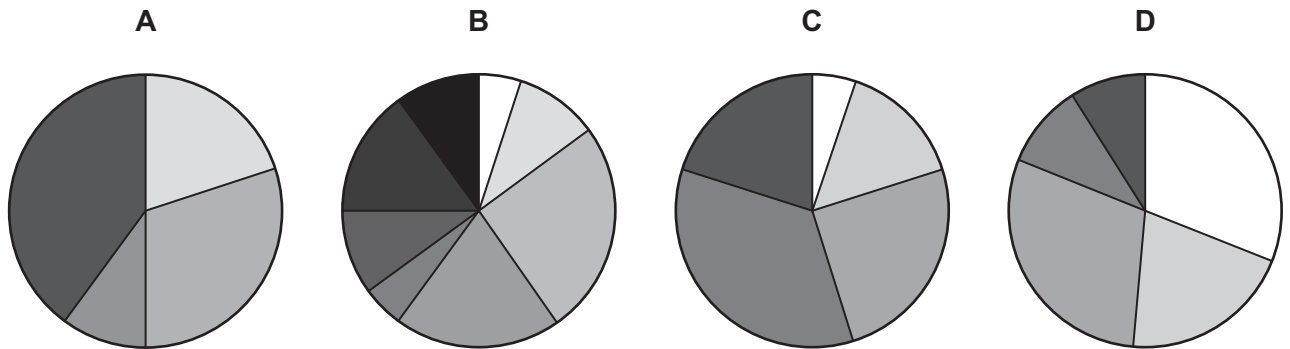
- A 1, 2 and 3
- B 1 and 2 only
- C 1 only
- D 2 only

- 38** Scientists investigated the size of populations of different species in four areas.

Each pie chart shows the results for one area.

Each colour represents a different species.

Which area has the highest biodiversity?



- 39** On average, a cow produces 50 kg of methane per year.

If a feed additive is added to the cow's food, the mass of methane produced by the cow per year is reduced, on average, by 35%.

What is the average reduction in mass of methane produced by 90 cows over one year?

- A** 17.5 kg **B** 31.5 kg **C** 1575 kg **D** 4500 kg
- 40** Genes can be inserted into crop plants to make them resistant to herbicides.

Which process is this an example of?

- A** antibiotic resistance
B genetic modification
C natural selection
D selective breeding

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