

Cambridge IGCSE™

BIOLOGY**0610/12**

Paper 1 Multiple Choice (Core)

February/March 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

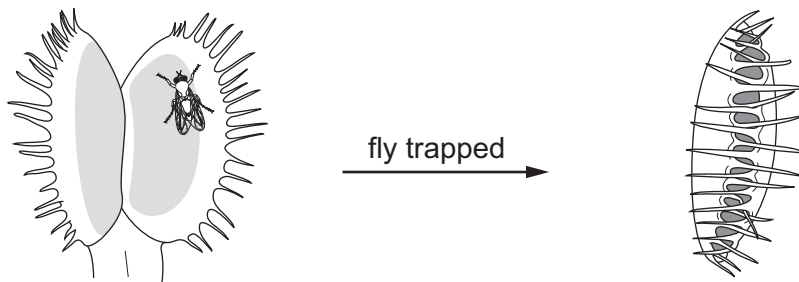
- The total mark for this paper is 40.
- Each correct answer will score one mark.
- Any rough working should be done on this question paper.

This document has **16** pages. Any blank pages are indicated.

- 1 The diagram shows how a plant, called a Venus fly-trap, reacts to a fly landing on it.

a fly lands on a leaf

the fly is digested by juices
produced by the leaf



Which characteristics of living things are shown by the plant in the diagram?

- A excretion and growth
 - B growth and sensitivity
 - C nutrition and reproduction
 - D nutrition and sensitivity
- 2 How many parts make up the scientific name of an organism?
- A one
 - B two
 - C three
 - D four
- 3 A student finds a vertebrate that has the features listed.

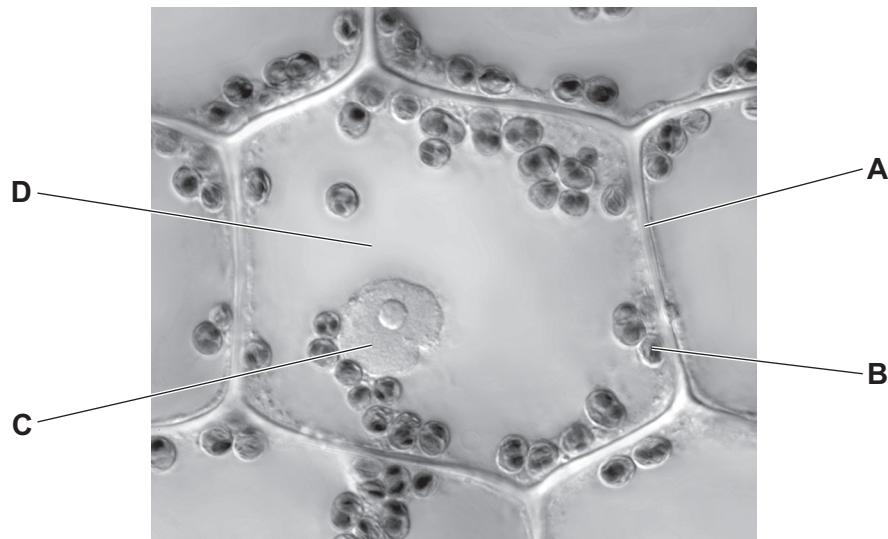
- 1 claws
- 2 feathers
- 3 four limbs
- 4 lays eggs

Which of these features mean that this vertebrate must be a bird?

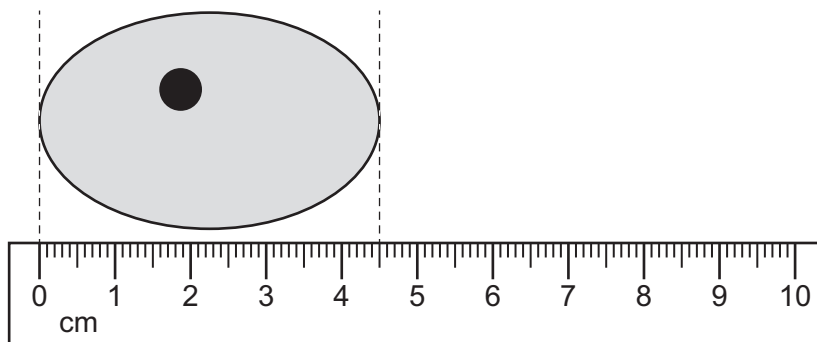
- A 1 and 3
- B 1 and 4
- C 2 and 3
- D 2 only

- 4 The photomicrograph shows a plant cell.

Which part is the nucleus?



- 5 The diagram shows a cell at $\times 1500$ magnification.



What is the actual size of the cell?

- A** 0.003 mm **B** 0.03 mm **C** 33 mm **D** 333 mm

- 6 Identical pieces of potato were placed in two test-tubes.

Distilled water was added to test-tube R and concentrated salt solution was added to test-tube S.

Which row shows the expected change in mass of the potato?

	test-tube R	test-tube S
A	mass decreased	mass decreased
B	mass decreased	mass increased
C	mass increased	mass decreased
D	mass increased	mass increased

- 7 Cyanide is a chemical that prevents the release of energy in flowering plants.

Which process will slow down if cyanide is added?

- A** active transport
- B** diffusion
- C** osmosis
- D** transpiration

- 8 Which simple molecules are the basic units of protein?

- A** amino acids
- B** fatty acids
- C** sugars
- D** vitamins

- 9 What are descriptions of lipase?

- 1 catalyst
- 2 enzyme
- 3 fat

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

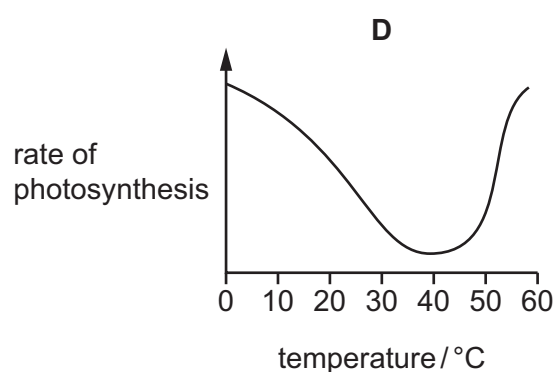
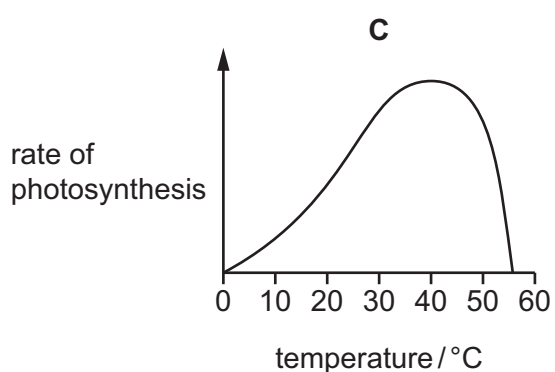
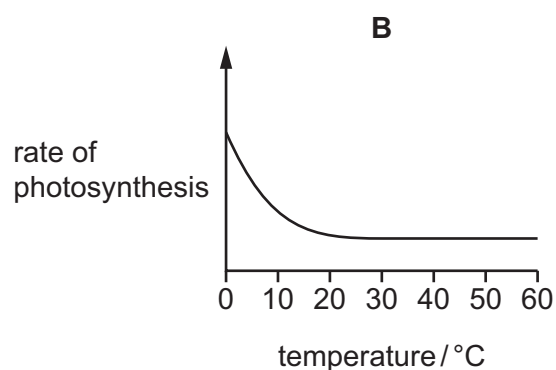
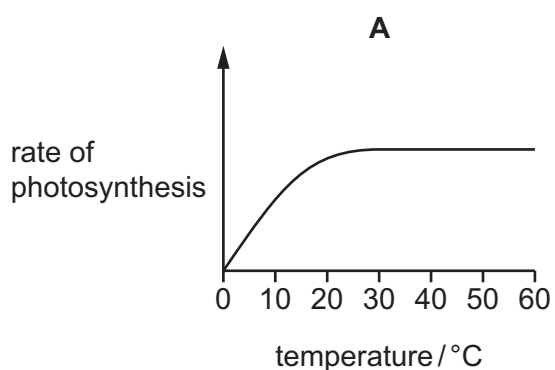
10 Which statement about enzymes is correct?

- A Enzymes have an active site with a shape that is complementary to the product.
- B Enzymes have an active site with a shape that is complementary to the substrate.
- C Products have an active site with a shape that is complementary to the enzyme.
- D Substrates have an active site with a shape that is complementary to the enzyme.

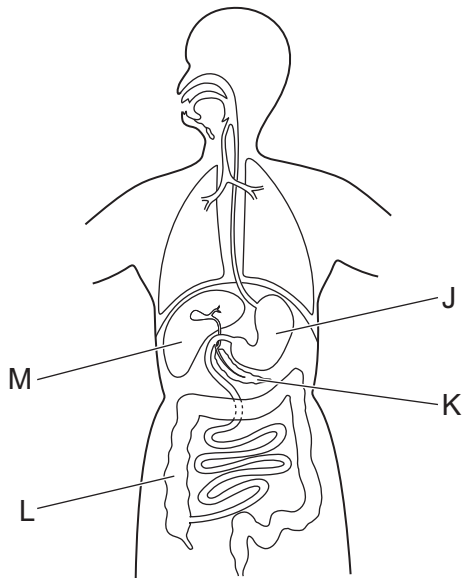
11 Which two substances are the products of photosynthesis?

- A carbon dioxide and glucose
- B carbon dioxide and water
- C oxygen and carbon dioxide
- D oxygen and glucose

12 Which graph shows the effect of temperature on the rate of photosynthesis?



13 The diagram shows the human digestive system.

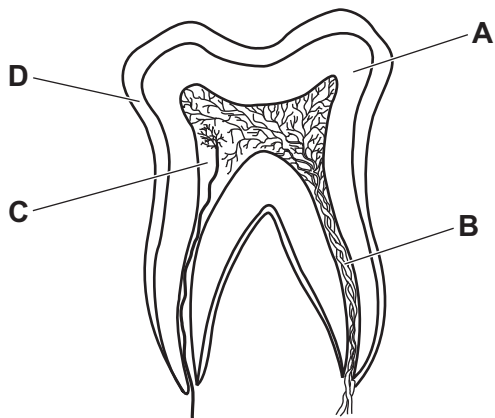


Which statement is correct for this diagram of the human digestive system?

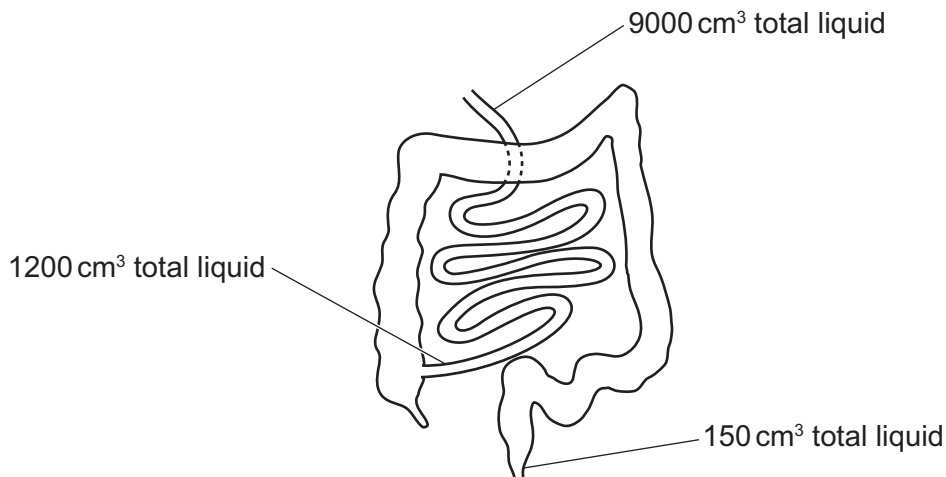
- A** J is the pancreas that produces lipase.
- B** K is the pancreas that produces amylase.
- C** L is the large intestine that produces protease.
- D** M is the stomach that produces protease.

14 The diagram shows a cross-section of a tooth.

Which part is the dentine?

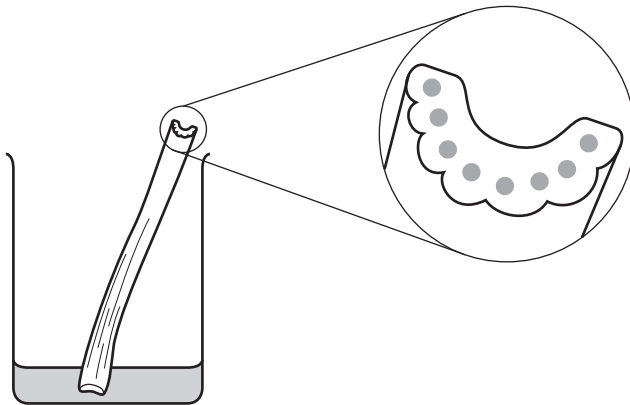


- 15** The diagram shows the total volume of liquid in different areas of the intestines during one day.



Which statement explains the changes in these volumes?

- A** Most water is absorbed in the colon.
 - B** Most water is absorbed in the small intestine.
 - C** Most water is lost by excretion.
 - D** Most water is lost in the faeces.
- 16** A celery stalk was placed in a beaker which contained a red stain. After 24 hours, the red stain appeared at the top of the celery stalk.

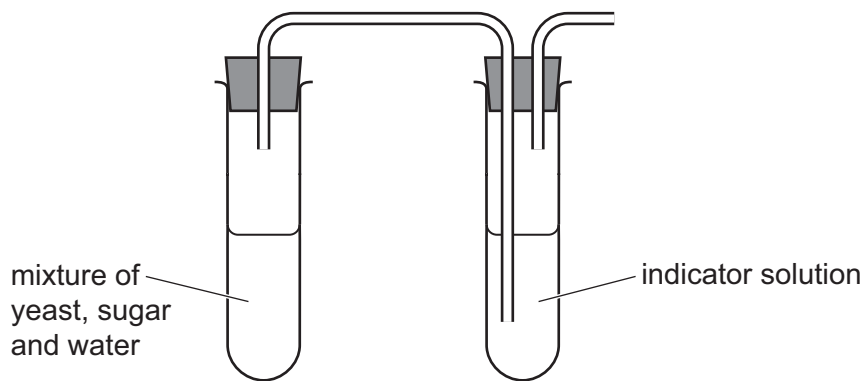


Which structures stained red?

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

- 17** A complete heartbeat occurs when all four muscular walls of the heart complete their contraction.
- In a baby, it takes 0.4 seconds for one complete heartbeat.
- How many times does the baby's heart beat in one minute?
- A** 0.4 **B** 24 **C** 150 **D** 240
- 18** Which blood vessel carries blood to the right atrium of the heart?
- A** aorta
- B** coronary artery
- C** pulmonary vein
- D** vena cava
- 19** A patient has a blood test and the platelet count is found to be lower than usual.
- Which effect will this have?
- A** Blood clotting at a cut will take longer.
- B** Fewer antibodies will be produced if microbes enter the bloodstream.
- C** Nutrient transport around the body will be restricted.
- D** Less oxygen will be carried to body cells.
- 20** Which disease is a transmissible disease?
- A** coronary heart disease
- B** HIV infection
- C** rickets
- D** scurvy
- 21** By which process does carbon dioxide move from the blood into the alveoli?
- A** active transport
- B** diffusion
- C** inspiration
- D** respiration

22 The apparatus shown is set up and left for one hour.



A gas is released by the mixture. It caused the indicator solution to go cloudy.

What is the indicator solution?

- A** alcohol
- B** Benedict's solution
- C** biuret solution
- D** limewater

23 A small mammal was kept in a sealed container for a short time before being released.

Which row shows the changes to the composition of the air inside the sealed container?

	percentage of carbon dioxide	percentage of oxygen
A	decreases	decreases
B	decreases	increases
C	increases	decreases
D	increases	increases

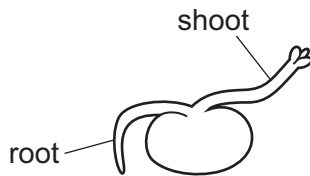
24 The diagram shows the stages in a pupil reflex.

light → receptor cells → P → relay neurone → Q → R (effector) → pupil diameter changes

Which structures are represented by P, Q and R?

	P	Q	R
A	motor neurone	sensory neurone	cornea
B	motor neurone	sensory neurone	iris
C	sensory neurone	motor neurone	cornea
D	sensory neurone	motor neurone	iris

25 The diagram shows a young plant growing in the dark.



Which tropisms are shown by the root and shoot of this plant?

	root	shoot
A	gravitropism	gravitropism
B	gravitropism	gravitropism and phototropism
C	phototropism	phototropism
D	phototropism	gravitropism and phototropism

26 In which situation would insulin secretion usually increase?

- A** after eating a meal
- B** hearing a loud bang immediately behind you
- C** listening to music
- D** reading a book

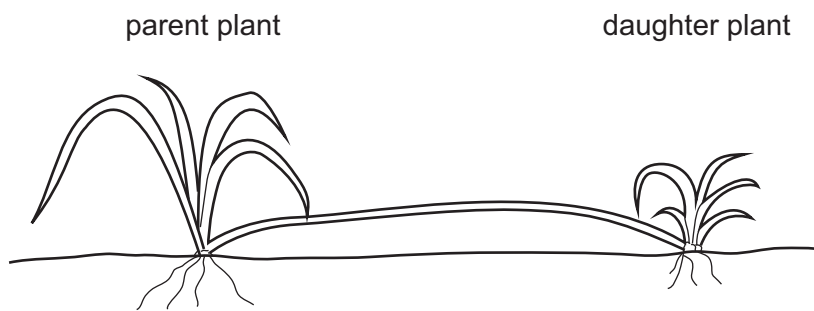
27 Which statement about adrenaline is correct?

- A It decreases the heart rate.
- B It decreases the diameter of the pupil.
- C It increases the breathing rate.
- D It is made in the pancreas.

28 What is a definition that applies to all types of drug?

- A a substance taken into the body that acts as a depressant
- B a substance taken into the body that affects chemical reactions in the body
- C a substance taken into the body to cure illness
- D a substance taken into the body to kill bacteria

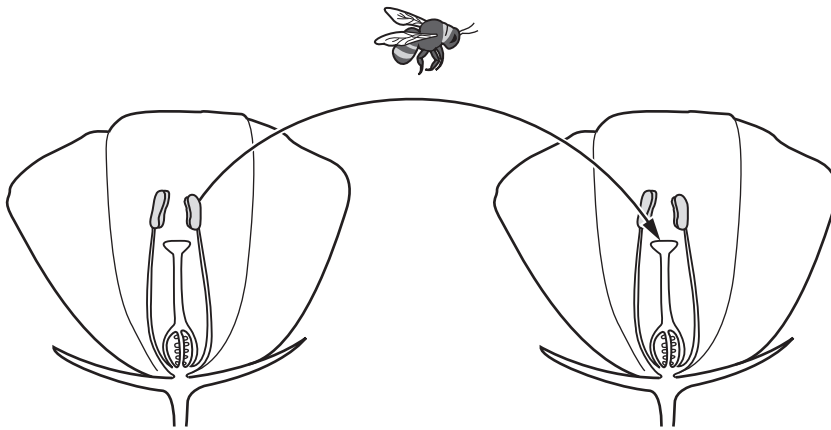
29 The diagram shows a spider plant with a daughter spider plant growing from it.



Which statement is correct?

- A Fertilisation was involved in this type of reproduction.
- B Only one parent is needed in this type of reproduction.
- C The parent and daughter plant are genetically different.
- D This is an example of sexual reproduction.

30 The diagram shows a process in flowering plants.



What is the name of this process?

- A fertilisation
 - B germination
 - C pollination
 - D predation
- 31 What is the order of structures that a sperm usually travels through to fertilise an egg cell?
- A cervix → oviduct → ovary
 - B cervix → uterus → oviduct
 - C uterus → cervix → ovary
 - D uterus → cervix → oviduct
- 32 A species of flower can have white or red petals.

White flowers must have **two** alleles for white petals.

Red flowers only need **one** allele for red petals.

Which statement describes the genotype of a white flower?

- A heterozygous dominant for petal colour
- B heterozygous recessive for petal colour
- C homozygous dominant for petal colour
- D homozygous recessive for petal colour

33 Which statement applies to the shape of pea seeds?

- A** The seed shape is caused by the environment only.
- B** The seed shape is caused by genes only.
- C** The seed shape phenotype has intermediates.
- D** The seed shape shows continuous variation.

34 What is the principal source of energy for living organisms?

- A** herbivores
- B** plants
- C** photosynthesis
- D** the Sun

35 The diagram shows a food chain.

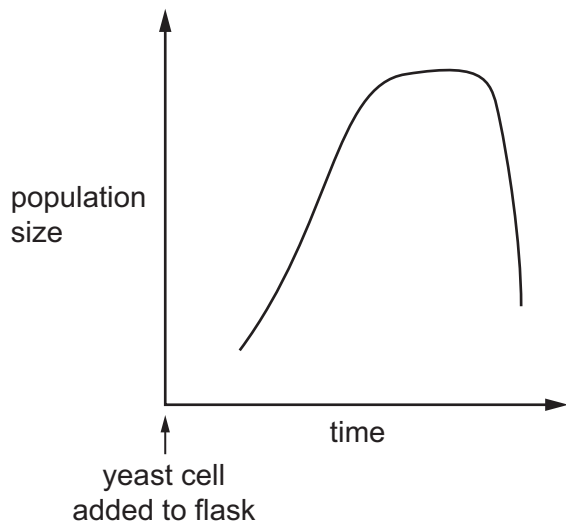
grass → wildebeest → lion

What do the arrows represent?

- A** digestion
- B** energy flow
- C** heat loss
- D** respiration

- 36** A yeast cell was introduced into a flask containing nutrients. The flask was kept at optimum conditions.

The graph shows the yeast population size over a period of time.



Which phase of the growth curve is missing from the graph?

- A** death phase
 - B** exponential (log) phase
 - C** lag phase
 - D** stationary phase
- 37** What is one example of how humans cause methane pollution?
- A** cutting down a tree to use the wood as a building material
 - B** placing waste material in landfill sites
 - C** driving electric cars
 - D** using selective breeding to improve crops
- 38** What are ways of conserving endangered species?

	education	seed banks
A	yes	yes
B	no	yes
C	yes	no
D	no	no

39 Which statement correctly explains why bacteria are used in biotechnology?

- A** Bacteria reproduce slowly.
- B** Bacteria need complex molecules.
- C** Bacteria can make complex molecules.
- D** Bacteria are all pathogens.

40 What is an example of genetic modification?

- A** artificially transferring pollen grains from an anther to a stigma
- B** changes in organisms due to natural selection
- C** choosing crop plants with high yields to breed together
- D** inserting genes into crop plants to make them resistant to insect pests

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