Cambridge Assessment International Education

Cambridge IGCSE™

BIOLOGY **0610/13**

Paper 1 Multiple Choice (Core) **October/November 2025**

45 minutes

You must answer on the multiple choice answer sheet.

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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.
- 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.

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[Turn over

1 The sundew is a carnivorous plant that can trap small insects with sticky hair-like structures on its leaves. When an insect gets stuck, other nearby sticky hair-like structures bend over to trap the insect.

Which characteristics of living organisms are demonstrated when the sundew plant traps insects?

A growth and excretion

B growth and sensitivity

C movement and excretion

D movement and sensitivity

2 An arthropod has three pairs of legs.

To which group of arthropods does this organism belong?

A arachnids

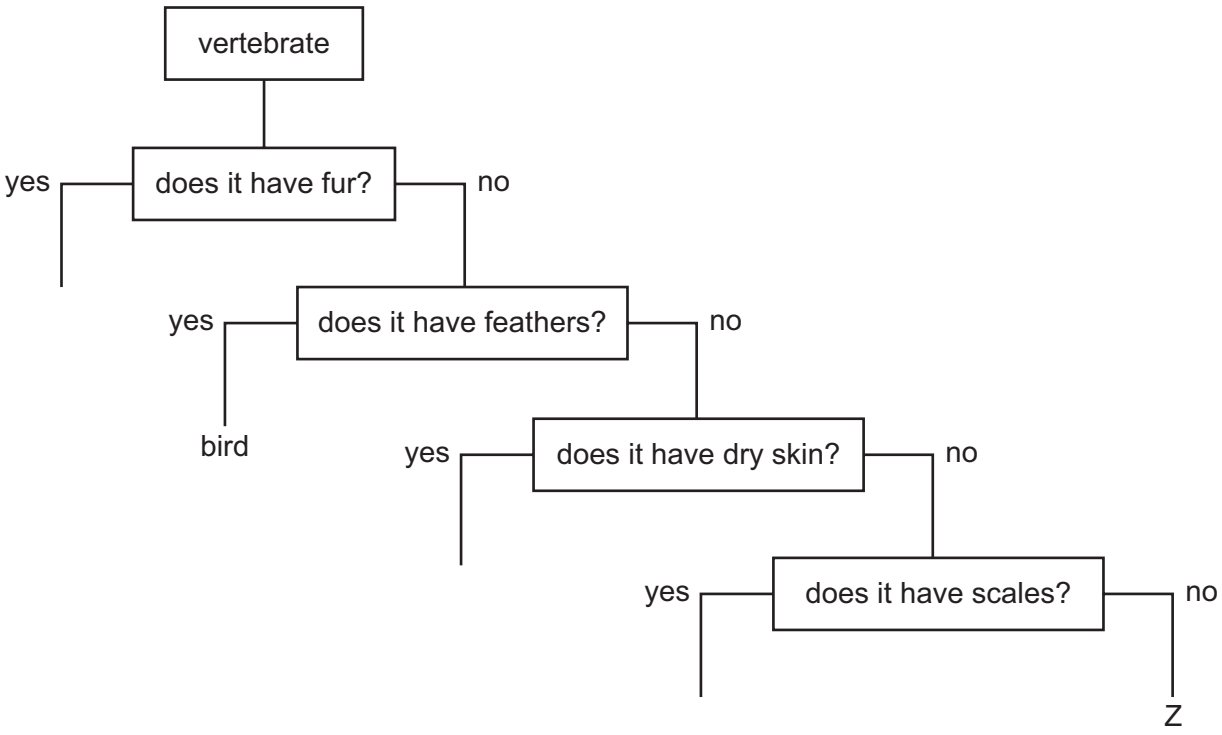
B crustaceans

C insects

D myriapods

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3 Using the dichotomous key, which type of animal would be found at Z?



A amphibian

B fish

C mammal

D reptile

4 Which statement describes a plasmid?

A It is a circular piece of DNA.

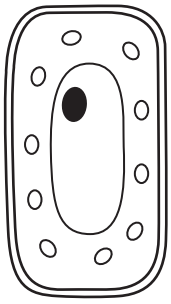
B It is the liquid part of human blood.

C It is the site of aerobic respiration.

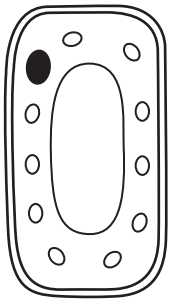
D It is the site of protein synthesis.

5 Which diagram represents a typical plant cell?

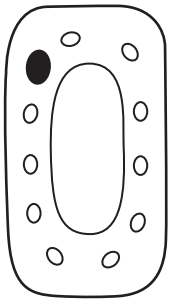
A



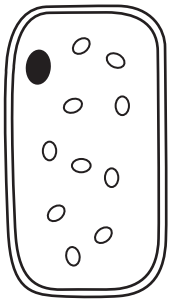
B



C



D



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[Turn over

6 A student drew a diagram of an alveolus. The diameter of the alveolus in the diagram was 90 mm. The magnification of the diagram was ×225.

What is the actual size of the alveolus?

A 4.00 mm **B** 2.50 mm **C** 0.40 mm **D** 0.25 mm

7 Which factor would decrease the rate of diffusion?

A increased temperature

B increased area of diffusion surface

C increased concentration gradient

D increased diffusion distance

8 What is the best piece of laboratory equipment to use to represent the cell membrane in an osmosis investigation?

A dialysis tubing

B filter paper

C measuring cylinder

D test-tube

9 Which process moves oxygen from the soil into a root hair cell?

A diffusion

B osmosis

C respiration

D ventilation

10 A food containing protein and vitamin C was tested.

Which row shows the results of these tests?

	result with biuret test	result with DCPIP test
A	purple	colourless
B	purple	blue
C	blue	colourless
D	blue	blue

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11 Which word describes the role of amylase in a chemical reaction?

A catalyst

B product

C solvent

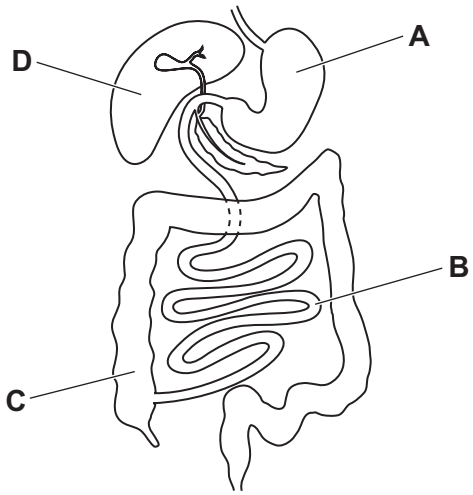
D substrate

12 How does a plant use the sugar that it makes?

	stored as starch	used for photosynthesis	used for respiration	used to make cellulose
A	yes	yes	yes	no
B	yes	yes	no	yes
C	yes	no	yes	yes
D	no	yes	yes	yes

13 The diagram shows part of the human digestive system.

Where is food physically digested in the presence of an acidic pH?



14 Which type of cell surrounds stomata?

A ciliated

B egg

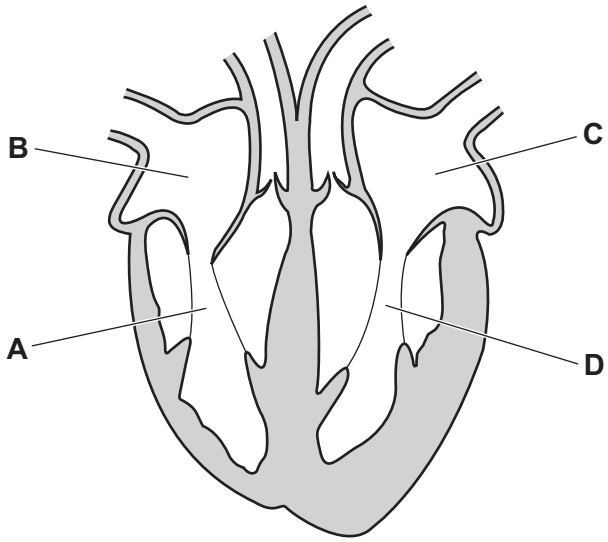
C guard

D mesophyll

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15 The diagram shows a cross-section of a human heart.

Which labelled part is the left atrium?



16 What is an example of the transmission of a disease by direct contact?

A breathing in a pathogen carried in the air

B eating infected food

C exchanging of body fluids

D touching a contaminated surface

17 Which row describes the composition of expired air compared to the composition of inspired air?

	oxygen concentration	carbon dioxide concentration
A	higher	higher
B	higher	lower
C	lower	higher
D	lower	lower

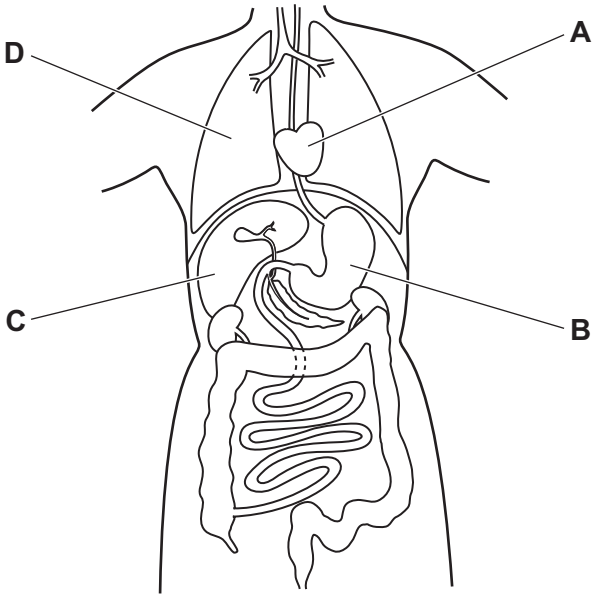
18 Which row shows the substances used and produced in aerobic respiration?

	carbon dioxide	glucose	oxygen	water
A	produced	produced	used	used
B	used	produced	produced	used
C	produced	used	used	produced
D	used	used	produced	produced

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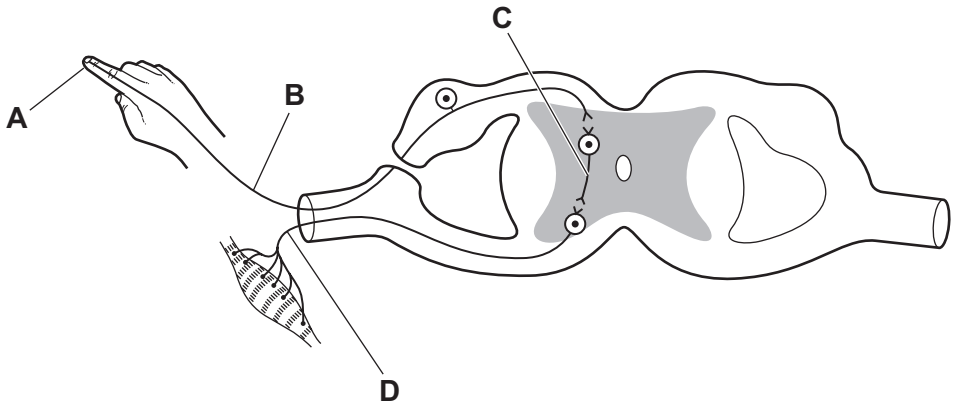
19 The diagram shows some of the organs in the human body.

Which organ contains alveoli?



20 The diagram shows a reflex arc.

Which part is found only in the central nervous system (CNS)?



21 Which structure in the eye changes the direction of the light as it enters the eye?

A cornea

B iris

C pupil

D retina

22 Which substance is secreted by an endocrine gland?

A glucose

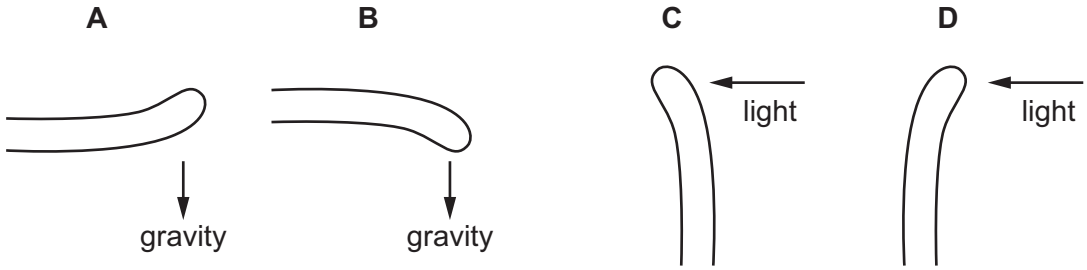
B insulin

C lactic acid

D starch

23 The diagrams show shoots of maize seedlings.

Which shoot is showing a gravitropic response in which it grows away from the stimulus?



24 Which statement describes the effect of antibiotics?

A Antibiotics kill all harmful microorganisms.

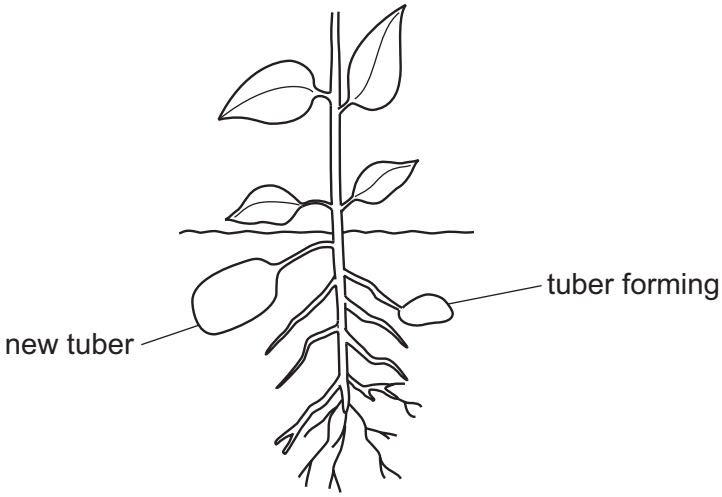
B Antibiotics kill bacteria and viruses only.

C Antibiotics kill bacteria only.

D Antibiotics kill viruses only.

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25 The diagram shows part of a potato plant. The tubers grow into new potato plants that are genetically identical to the parent plant.



Which process is shown?

A asexual reproduction

B fertilisation

C pollination

D sexual reproduction

26 The photograph shows a flower.



What is the part labelled P?

A a stigma

B a style

C an anther

D an ovary

27 In which conditions will seeds germinate?

	oxygen	water
A	absent	absent
B	present	absent
C	absent	present
D	present	present

28 Which part of the male reproductive system produces seminal fluid?

A penis

B prostate gland

C scrotum

D testes

29 In humans, what is an example of a secondary sexual characteristic in **both** males and females?

A Fat is deposited on the hips and thighs.

B Hair grows on the face.

C Sexual organs grow.

D The hips widen.

30 The table shows the number of new human immunodeficiency virus (HIV) infections per 1000 people, in one country, in 1990 and in 2022.

year	number of new HIV infections per 1000 people
1990	2.57
2022	0.22

Which statement could explain the change in the number of new HIV infections between 1990 and 2022?

A an increase in illegal drug use

B an increase in reusing needles for injections

C an increase in screening of blood that is used for transfusions

D an increase in unprotected sexual contact

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31 Which statement describes an allele?

A a sequence of amino acids

B an alternative form of a gene

C an observable feature

D the genotype of an organism

32 In a species of plant, the allele for red flowers, R, is dominant to the allele for white flowers, r.

Two plants with red flowers were crossed.

parents: plant with red flowers × plant with red flowers

↓

offspring: 93 plants with red flowers and 28 plants with white flowers

What are the genotypes of the parents?

A RR and rr **B** RR and Rr **C** Rr and Rr **D** Rr and rr

33 Black truffle is a fungus that obtains nutrients from the roots of hazel trees. Deer find and eat the fungi.

What is the source of energy for this food chain?

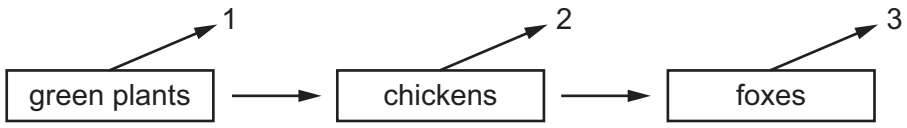
A deer

B hazel trees

C soil

D the Sun

34 The diagram shows a simple food chain.



Which process releases the energy that is lost at 1, 2 and 3?

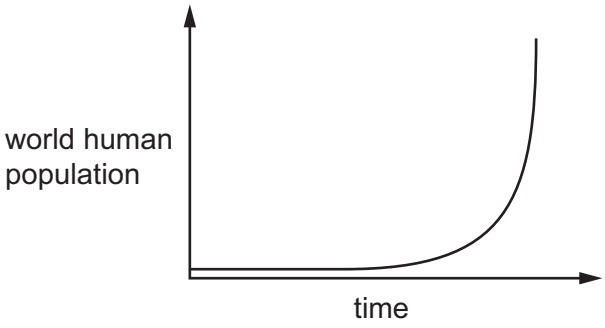
A ingestion

B photosynthesis

C respiration

D transpiration

35 The graph shows the growth of the world human population.



Which phases of population growth are shown in the graph?

A death and lag

B death and stationary

C exponential and lag

D exponential and stationary

36 Weeds are growing in a crop.

What could be used to kill the weeds?

A artificial fertiliser

B herbicide

C insecticide

D magnesium ions

37 Which substance is a source of water pollution that contains pathogens?

A antibiotic

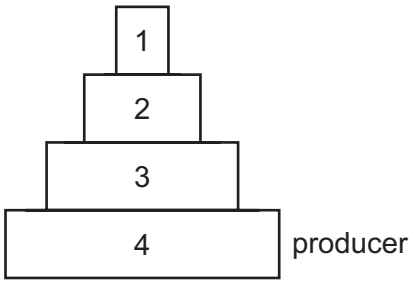
B chlorophyll

C methane

D untreated sewage

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38 The diagram shows an ecological pyramid.



Which levels in the diagram contain carnivores?

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

39 In ideal conditions, one species of bacterium can grow and divide every 15 minutes.

If one bacterium starts to grow and divide, what would be the **increase** in the number of bacteria after 90 minutes?

A 16 **B** 32 **C** 63 **D** 127

40 What is a disadvantage of intensive farming?

A less cost to produce the same yield

B fewer habitats in the same area

C fewer people required to produce the same yield

D less land required to produce the same yield

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