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CAMBRIDGE
International Education

Cambridge IGCSE™

BIOLOGY **0610/11**

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)

6783910747

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 **20** pages. Any blank pages are indicated.

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[Turn over

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1 A single-celled organism swims towards a source of light.

Which characteristics of living things does this behaviour involve?

A growth and excretion

B growth and sensitivity

C movement and sensitivity

D movement and excretion

2 Which specialised cells move mucus?

A ciliated cells

B neurones

C white blood cells

D root hair cells

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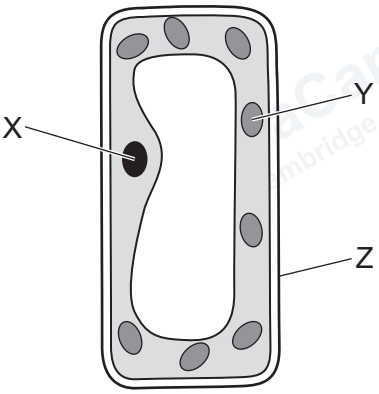
3 The diagram shows a cell from a plant leaf. The structure labelled Y contains a green pigment.



Which labelled structures are also present in animal cells?

key

✓ = also present in animal cells

✗ = **not** present in animal cells

	X	Y	Z
A	✓	✗	✗
B	✓	✓	✗
C	✗	✗	✓
D	✗	✓	✓

4 Potato cylinders were placed in sucrose solutions of different concentrations.

The masses of the potato cylinders changed.

Which statement explains the changes in mass?

A In a potato cylinder that gained mass, sucrose and water moved into the potato cells.

B In a potato cylinder that gained mass, only water moved into the potato cells.

C In a potato cylinder that lost mass, only sucrose moved out of the potato cells.

D In a potato cylinder that lost mass, sucrose and water moved out of the potato cells.

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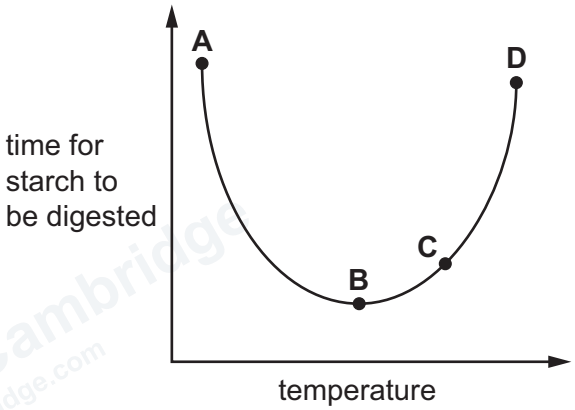
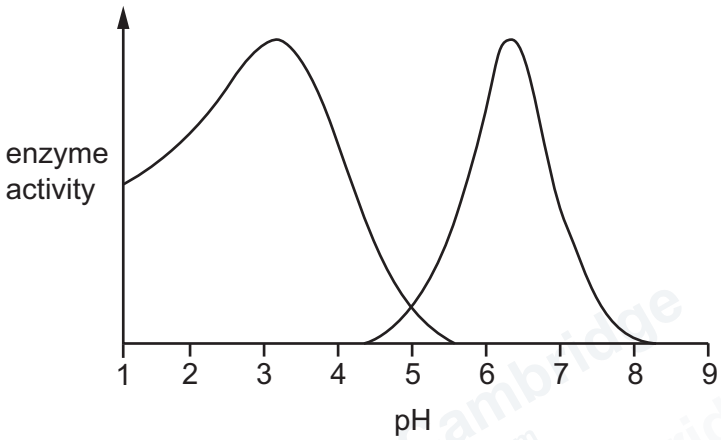
5 Four identical mixtures of starch and amylase solutions were kept at different temperatures.

The graph shows the time taken for the starch to be completely digested at each temperature.

At which temperature is the rate of reaction quickest?



6 The graph shows the effect of pH on the activity of two enzymes.



At which pH is the activity of both enzymes the same?

A 8 **B** 5 **C** 3 **D** 1

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7 An aquatic plant was kept in darkness for 12 hours in a sealed container with hydrogencarbonate indicator.

Which statement explains why the colour of the hydrogencarbonate indicator changed from red to yellow?

A The plant did **not** respire or photosynthesise.

B The plant photosynthesised and respired.

C The plant only photosynthesised.

D The plant only respired.

8 Which carbohydrate is transported in the phloem?

A cellulose

B glycogen

C starch

D sucrose

9 How are most leaves adapted for photosynthesis?

A They have a large surface area and are thick.

B They have a large surface area and are thin.

C They have a small surface area and are thick.

D They have a small surface area and are thin.

10 A lack of which component of the diet causes rickets?

A iron

B protein

C vitamin C

D vitamin D

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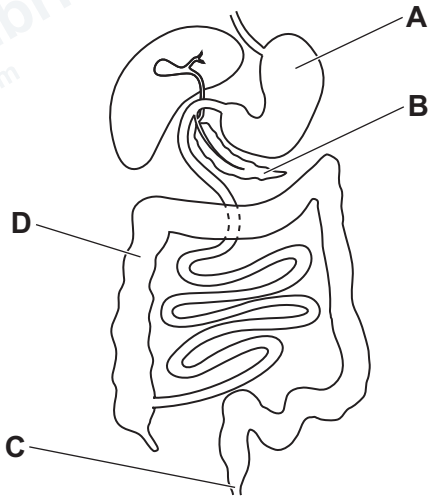
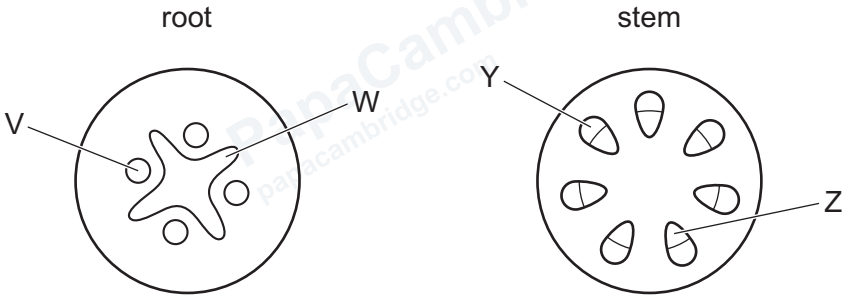
11 The diagram shows some of the organs of the digestive system.

Which organ is involved in physical digestion?



12 The diagrams show cross-sections through a root and a stem.



Which labels are correct?

	V	W	Y	Z
A	phloem	xylem	xylem	phloem
B	phloem	xylem	phloem	xylem
C	xylem	phloem	xylem	phloem
D	xylem	phloem	phloem	xylem

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13 What is the pathway for water through a plant?

A root cortex cells → root hair cells → xylem → mesophyll cells

B root cortex cells → root hair cells → mesophyll cells → xylem

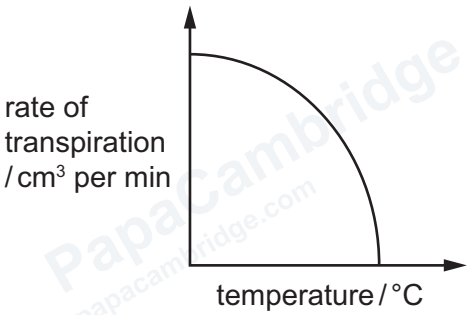
C root hair cells → xylem → root cortex cells → mesophyll cells

D root hair cells → root cortex cells → xylem → mesophyll cells

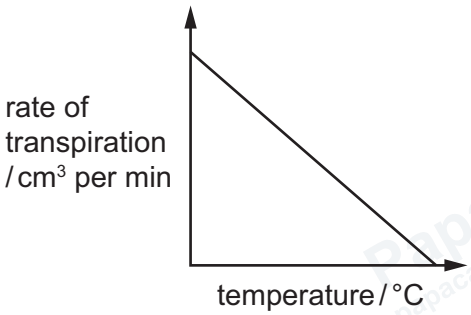
14 A student investigated the effect of temperature on the rate of transpiration in a plant with a limited water supply.

Which graph shows the effect of temperature on the rate of transpiration?

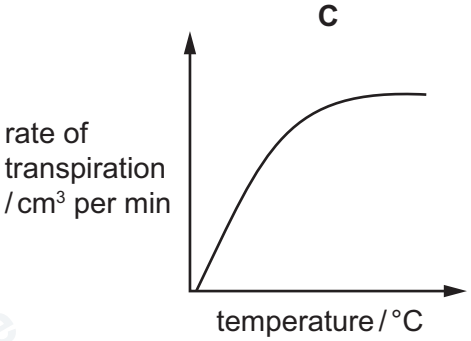
A



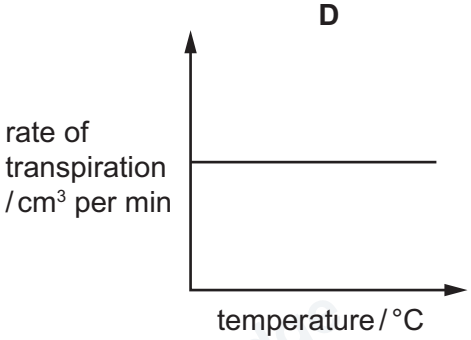
B



C



D



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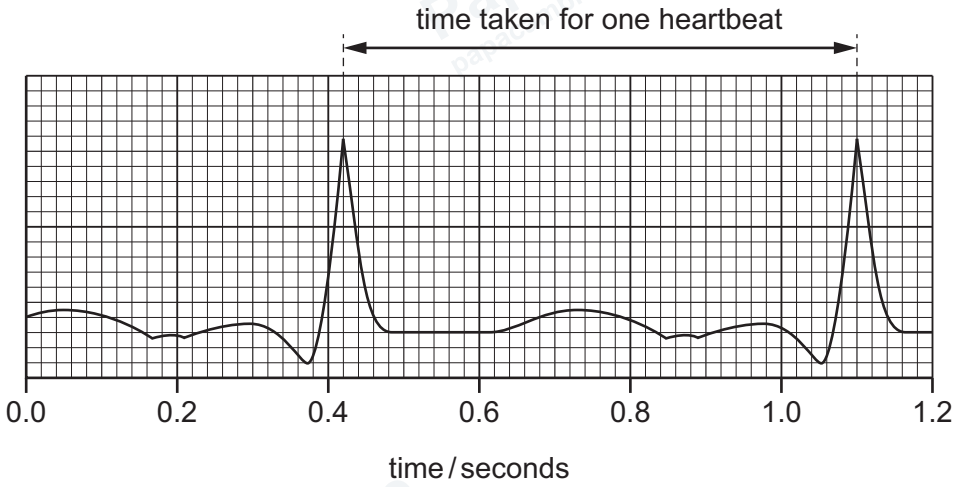
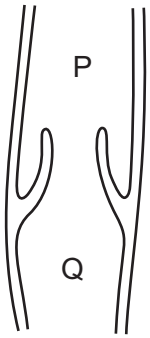
15 The graph shows an ECG trace from a normal human heart.



What is the heart rate in heartbeats per minute?

A 97 **B** 88 **C** 68 **D** 58

16 The diagram shows a section through a blood vessel.



Which type of blood vessel is shown, and in which direction does the blood flow?

	type of vessel	direction of flow
A	artery	P to Q
B	artery	Q to P
C	vein	P to Q
D	vein	Q to P

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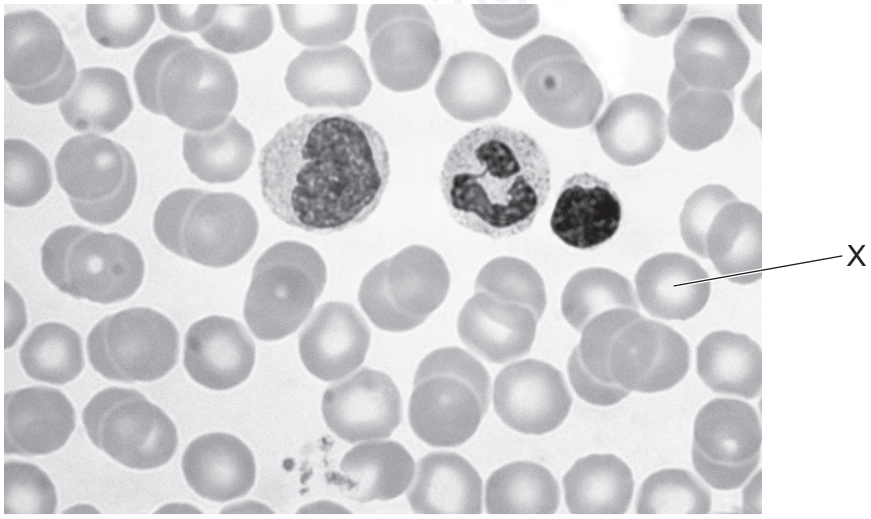
17 The photomicrograph shows some of the cells in human blood.



What is the function of the cell labelled X?

A antibody production

B blood clotting

C transport of hormones

D transport of oxygen

18 What is a pathogen defined as?

A a contaminated surface or food

B a disease-causing organism

C a transmissible disease

D a virus

19 What is the order of the parts of the breathing system through which air moves from the nose into the lungs?

A bronchus → bronchioles → trachea

B bronchus → trachea → bronchioles

C trachea → bronchi → bronchioles

D trachea → bronchioles → bronchi

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20 What is produced by bacteria during aerobic respiration?

	carbon dioxide	ethanol	lactic acid
A	no	yes	yes
B	yes	yes	no
C	yes	no	no
D	no	no	yes

21 Processes which occur in living organisms are listed.

1 active transport
2 diffusion
3 osmosis
4 passage of a nerve impulse

Which two processes require energy from respiration?

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

22 Which organ of the body excretes urea?

A bladder
B kidney
C large intestine
D liver

23 Which sequence shows a simple reflex arc?

A effector → motor neurone → relay neurone → sensory neurone → receptor
B effector → sensory neurone → motor neurone → relay neurone → receptor
C receptor → sensory neurone → relay neurone → motor neurone → effector
D receptor → motor neurone → relay neurone → sensory neurone → effector

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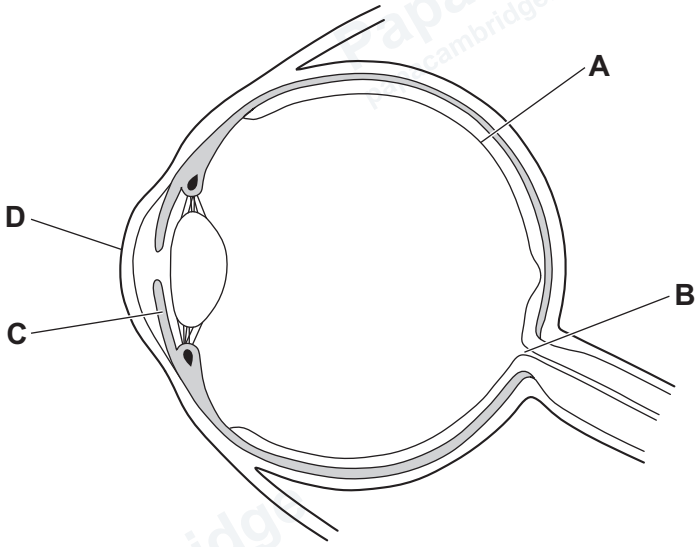
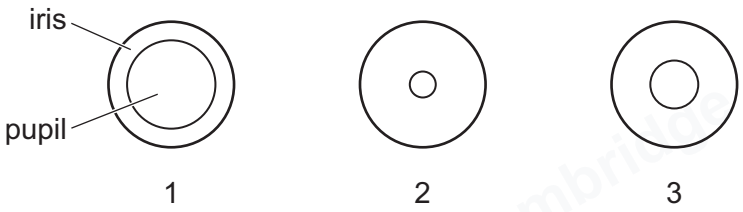
24 The diagram shows a section through a human eye.

Where are light-sensitive cells found?



25 The diagram shows the appearance of the iris and the pupil in three different light conditions.



Which row shows the size of the pupil of the eye in each light condition?

	no light	**moderate light**	**bright light**
A	1	2	3
B	1	3	2
C	2	1	3
D	3	2	1

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26 Which statement about human hormones is correct?

A A hormonal response lasts for a very short time.

B Hormones are transported by red blood cells.

C The heart is one of the target organs of adrenaline.

D The testes produce adrenaline.

27 How do shoots and roots normally respond to light and gravity?

	direction of growth of shoots		**direction of growth of roots**	
	light	**gravity**	**light**	**gravity**
A	towards	away	away	towards
B	away	towards	towards	away
C	towards	away	towards	away
D	away	towards	away	towards

28 What is the correct definition of a drug?

A a substance that affects or modifies chemical reactions in the body

B a substance that can have negative social implications

C a substance that can affect reaction times and self-control

D a substance that can kill bacteria

29 In pollination, where are pollen grains transferred to after they leave the anther?

A ovules

B stamen

C stigma

D style

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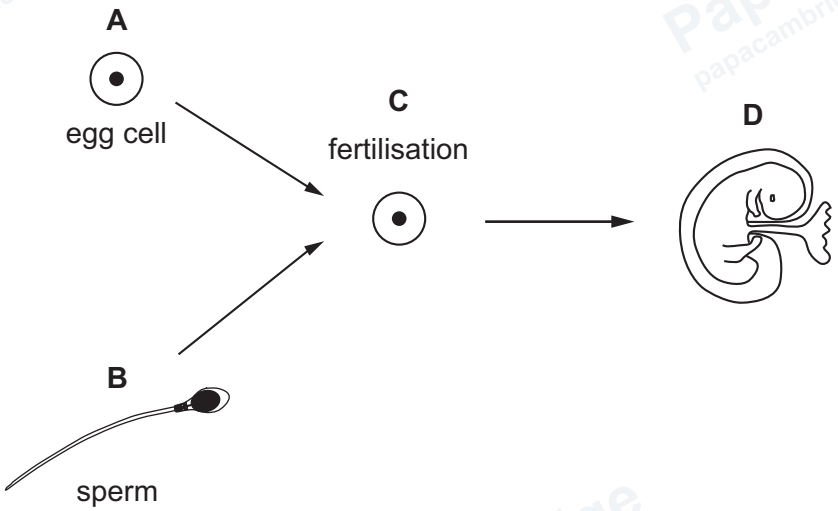
30 The diagram shows fertilisation and early development of an embryo.

Which label shows a zygote?



31 What causes the development of female secondary sexual characteristics?

A ovulation occurring

B oestrogen production

C menstrual cycle starting

D adrenaline production

32 Which statement about the human sex chromosomes is correct?

A Females have an X chromosome and a Y chromosome.

B Females have two Y chromosomes.

C Males and females have at least one X chromosome.

D Males and females have at least one Y chromosome.

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33 In mice, the allele for black coat colour, **B**, is dominant to the allele for brown coat colour, **b**.

What is the expected phenotypic ratio of the offspring of two heterozygous black mice?

A all black

B all brown

C 1 black : 1 brown

D 3 black : 1 brown

34 Farmers have bred Holstein–Friesian cattle to produce more milk than older breeds of cattle.

Which process was used to produce these cattle?

A adaptation

B genetic engineering

C natural selection

D selective breeding

35 The information listed describes the feeding relationships in a habitat.

- Frogs are amphibians and secondary consumers.
- Herons are birds that eat frogs.

What describes the heron?

A quaternary consumer and carnivore

B quaternary consumer and herbivore

C tertiary consumer and carnivore

D tertiary consumer and herbivore

36 What describes a decomposer?

A an animal that gets its energy by eating other animals

B an animal that gets its energy by eating plants

C an organism that gets its energy from dead or organic waste material

D an organism that makes its own organic nutrients

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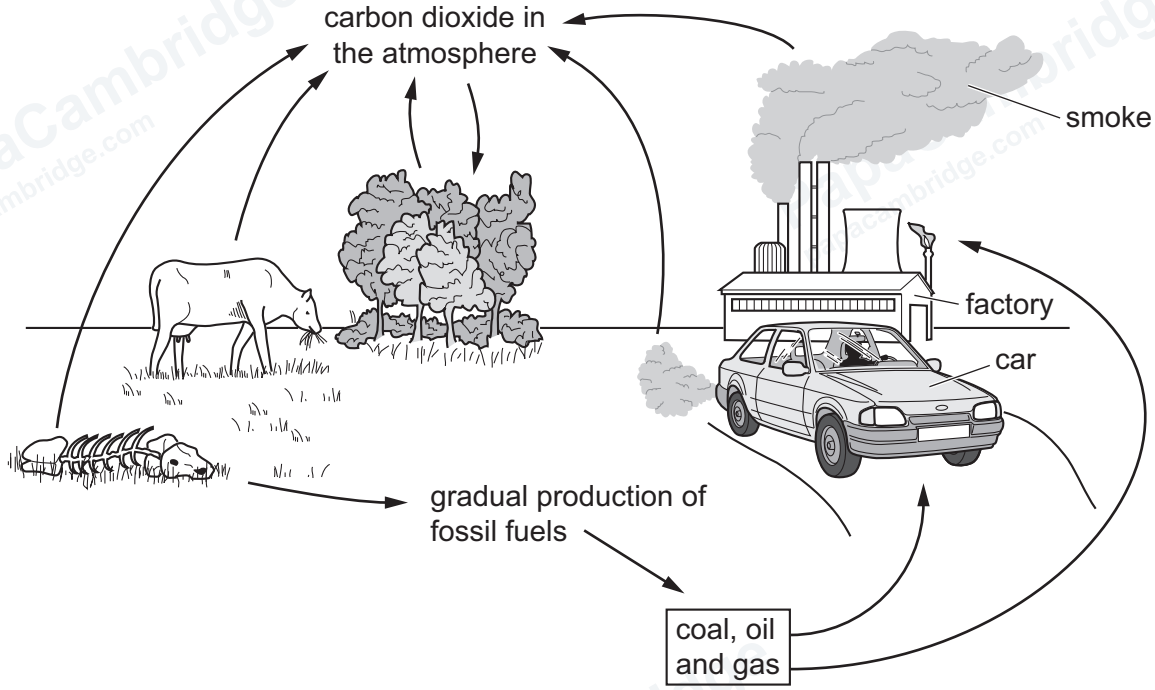
37 The diagram represents the carbon cycle.



Which process produces the carbon dioxide from the factory and the car?

A combustion

B condensation

C decomposition

D precipitation

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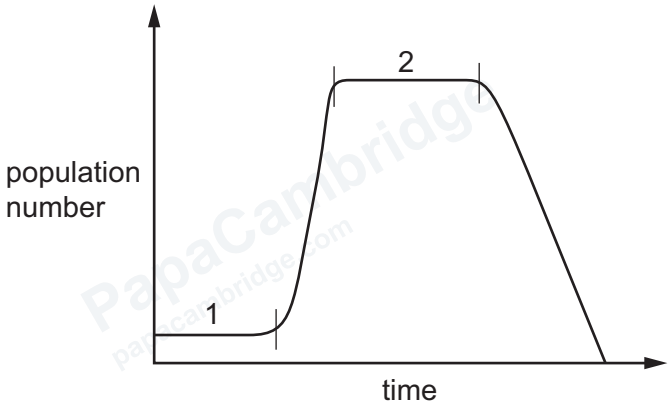
38 The graph shows a population growth curve.



Which row identifies the different stages in the population growth curve?

	stage 1	stage 2
A	exponential (log)	lag
B	exponential (log)	stationary
C	lag	exponential (log)
D	lag	stationary

39 What is a definition of biodiversity?

A a group of organisms of one species living in the same area at the same time

B all of the populations of different species in an ecosystem

C the community of organisms and the environment interacting together

D the number of different species that live in an area

40 Bacteria are used for many genetic modification and biotechnology purposes.

Which factors make bacteria useful for genetic modification and biotechnology?

1 Bacteria can make complex molecules.

2 Bacteria do not mutate.

3 Bacteria are living organisms.

4 Bacteria reproduce rapidly.

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

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