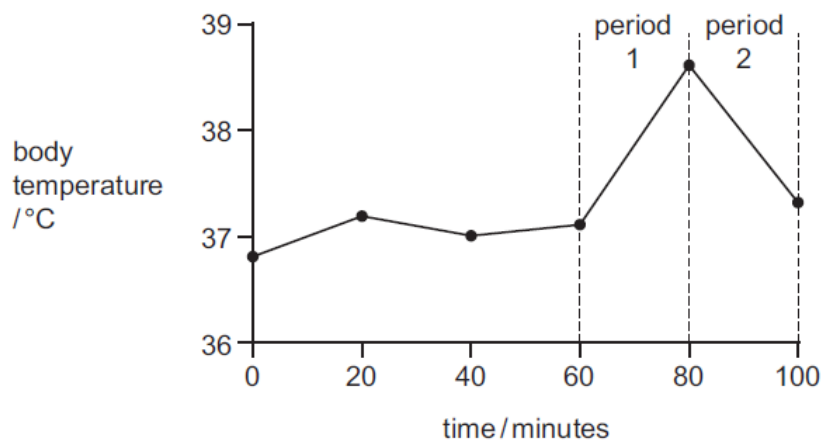


Coordination and Control – 2022 June O Level 5090**1. June/2022/Paper_11/No.22**

The graph shows changes in a person's body temperature plotted against time.



What could cause the changes in body temperature in periods 1 and 2?

	period 1	period 2
A	reduced air temperature	increased air temperature
B	reduced air temperature	shivering
C	vigorous exercise	increased sweating
D	vigorous exercise	shivering

2. June/2022/Paper_11/No.23

The diagram shows a cross-section of the human brain.

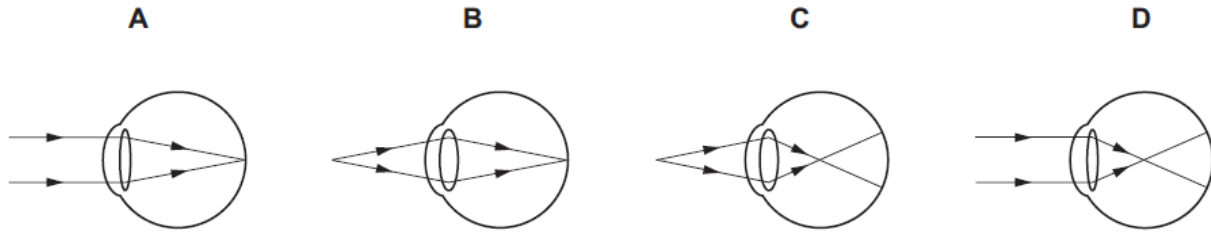


If structure X is damaged, which body functions may be affected?

- A** control of body temperature
- B** control of breathing and heartbeat
- C** control of emotion, language, memory and reasoning
- D** control of movement, posture and balance

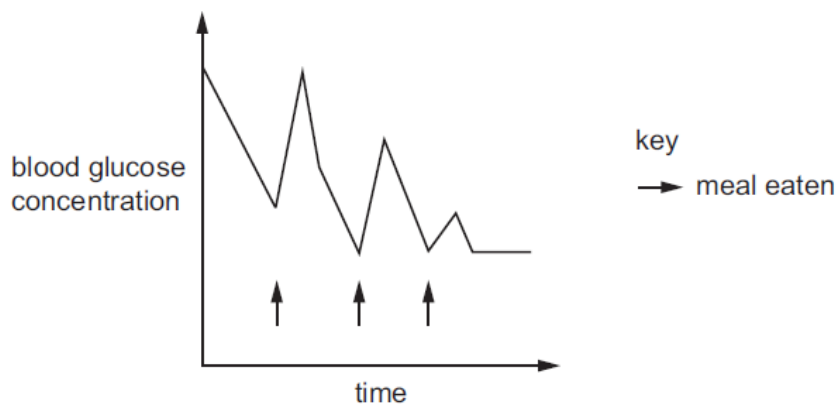
3. June/2022/Paper_11/No.24

Which diagram shows how light from a distant object is focused on the retina to form a clear image?



4. June/2022/Paper_11/No.25

The graph shows the changing blood glucose concentration in one person over 24 hours.

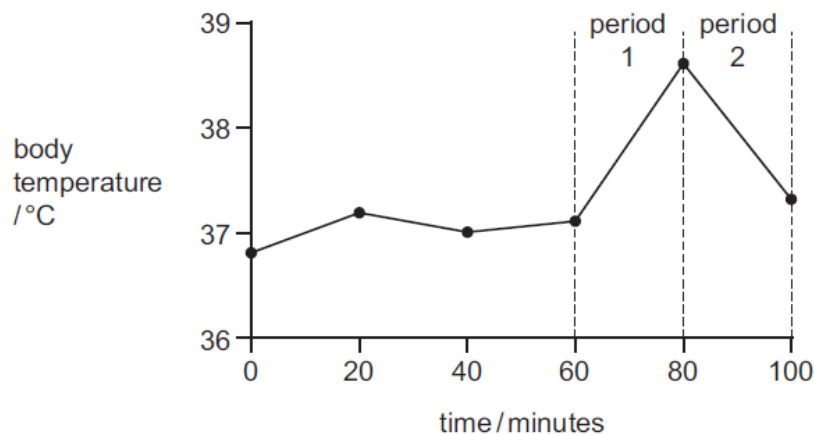


Which statement explains the shape of the graph?

- A After each meal, adrenaline is released.
 - B After each meal, insulin is released.
 - C Before each meal, adrenaline is released.
 - D Before each meal, insulin is released.
5. June/2022/Paper_11/No.26
- What happens when the triceps muscle of the forelimb begins to contract?
- A The biceps muscle begins to relax.
 - B It starts to pull the radius bone upwards.
 - C The arm becomes bent at the elbow joint.
 - D The upper arm is raised above the shoulder.

6. June/2022/Paper_12/No.22

The graph shows changes in a person's body temperature plotted against time.



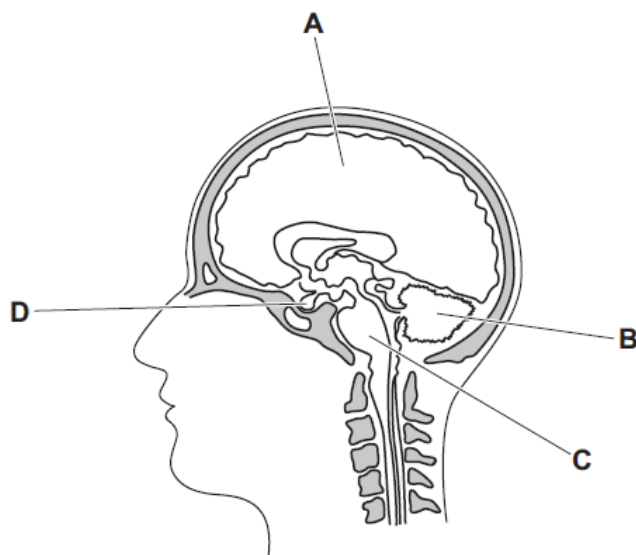
What could cause the changes in body temperature in periods 1 and 2?

	period 1	period 2
A	reduced air temperature	increased air temperature
B	reduced air temperature	shivering
C	vigorous exercise	increased sweating
D	vigorous exercise	shivering

7. June/2022/Paper_12/No.23

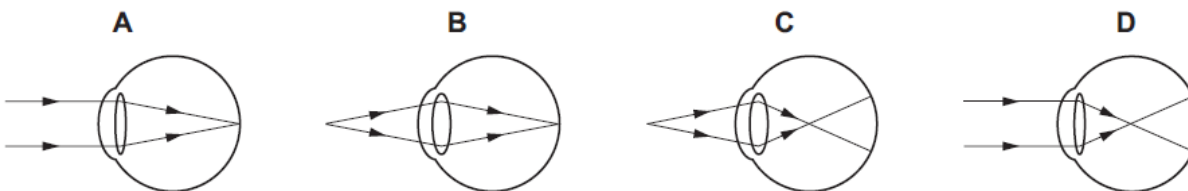
The diagram shows a section through the human brain.

Which part of the brain controls the rate of breathing?



8. [June/2022/Paper_12/No.24](#)

Which diagram shows how light from a distant object is focused on the retina to form a clear image?

9. [June/2022/Paper_12/No.25](#)

Which condition causes an increased blood glucose concentration?

- A a condition causing sufferers to reduce food intake to extreme levels
- B a genetic disorder causing too much insulin to be secreted
- C a condition causing a reduction in the number of red blood cells
- D a condition causing too much adrenaline to be secreted

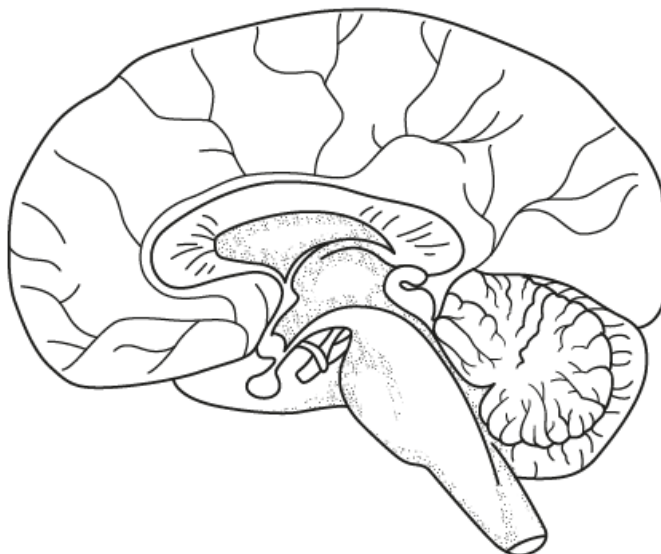
10. [June/2022/Paper_12/No.27](#)

Which short-term effect is caused by excessive consumption of alcohol?

- A damage to the tissues of the heart
- B faster transmission of nerve impulses
- C reduced self-control of behaviour
- D shorter reaction times

11. June/2022/Paper_22/No.1(a)

The diagram shows the human brain and the table lists the functions of some parts of the human brain.



part of brain	function
A	memory storage and control of conscious behaviour
B	control of body temperature
C	control of balance and coordination
D	control of unconscious activities such as breathing

(a) Label on the diagram the parts of the brain identified in the table, using label lines and the letters **A** to **D** only. [4]

(b) (i) Name **one** structure in the skin that receives impulses from part **B** of the brain to control body temperature.

..... [1]

(ii) Outline how the action of this structure results in the control of body temperature.

.....

 [3]

12. June/2022/Paper_23/No.(8a_8b)

The functions of the body are coordinated by nerve impulses and hormones.

(a) Compare these two types of coordination.

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..... [4]

(b) A girl sees a vehicle travelling towards her at speed as she crosses a road. This triggers nerve impulses and the release of adrenaline in her body.

Describe the role of the nerve impulses and adrenaline in helping her to react to this situation.

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..... [6]