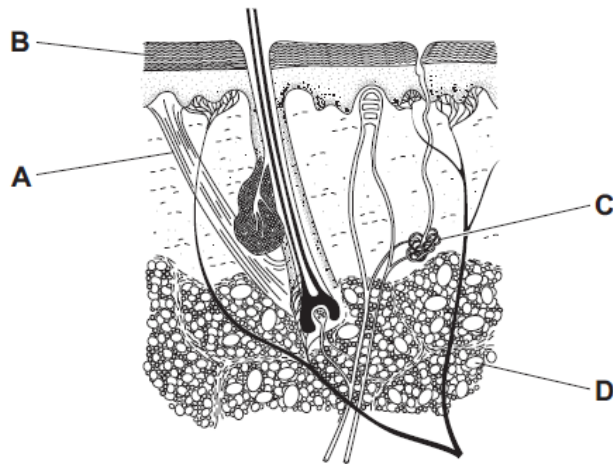


Coordination and Control – 2022 November O Level 5090**1. Nov/2022/Paper_11/No.22**

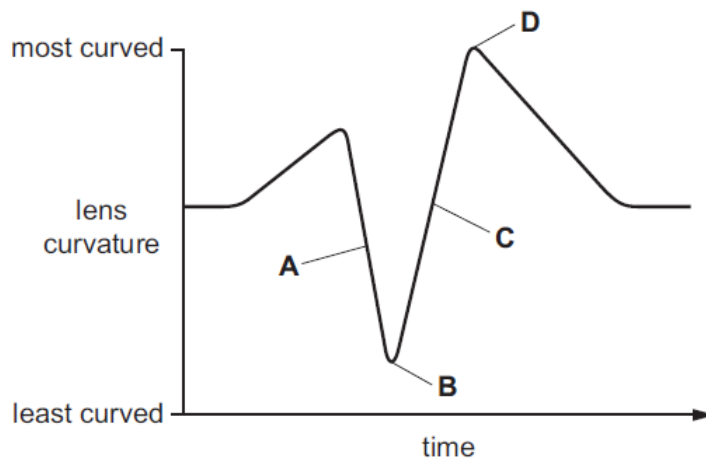
The diagram shows a section through part of the skin.

Which structure is the best insulator?

**2. Nov/2022/Paper_11/No.23**

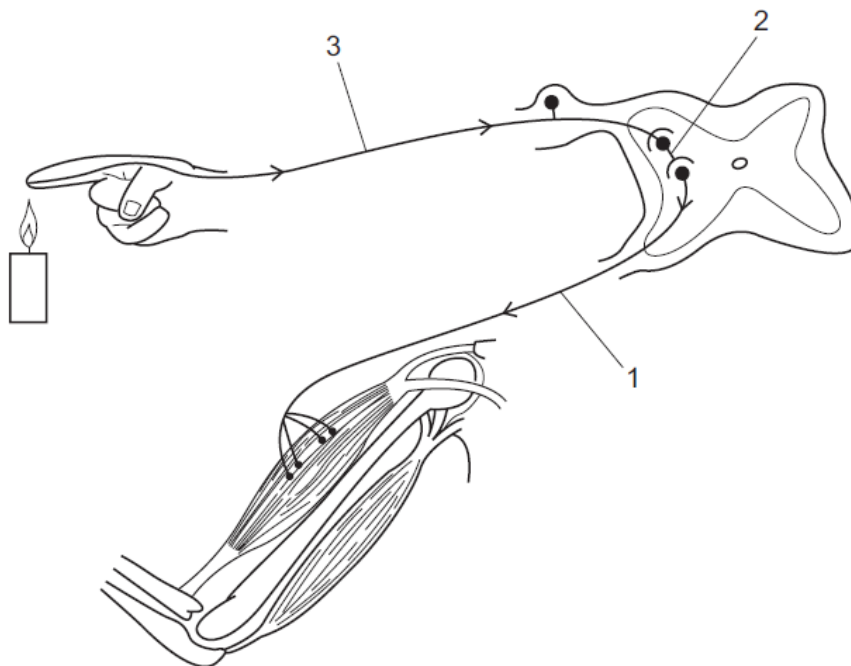
The graph shows changes in the shape of the lenses of a person's eyes while watching a bird flying.

At which point is the bird flying most rapidly towards the person?



3. Nov/2022/Paper_11/No.24

The diagram shows the nerve pathway in a reflex action when a person accidentally touches something hot.



Which row correctly identifies a sensory neurone, a relay neurone and a motor neurone?

	1	2	3
A	motor neurone	relay neurone	sensory neurone
B	sensory neurone	relay neurone	motor neurone
C	relay neurone	motor neurone	sensory neurone
D	motor neurone	sensory neurone	relay neurone

4. Nov/2022/Paper_11/No.25

A patient shows symptoms of unexplained weight loss, severe thirst and frequent need of urination.

A test shows high levels of glucose in the urine.

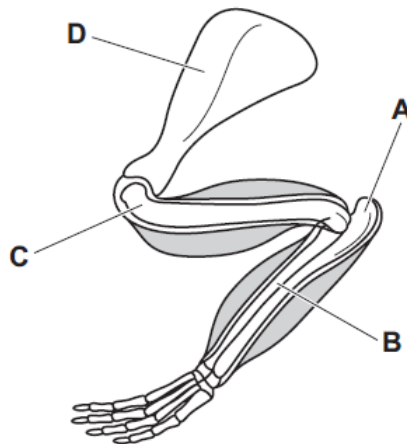
Which condition is diagnosed?

- A** cardiovascular disease
- B** diabetes
- C** anaemia
- D** obesity

5. Nov/2022/Paper_11/No.26

The diagram shows the forelimb of a rabbit.

Which labelled bone is the ulna?



6. Nov/2022/Paper_12/No.21

Which changes occur when a person walks from a very cold room into a hot room?

	sweating	skin blood vessels
A	decreases	constrict
B	decreases	dilate
C	increases	dilate
D	increases	constrict

7. Nov/2022/Paper_12/No.23

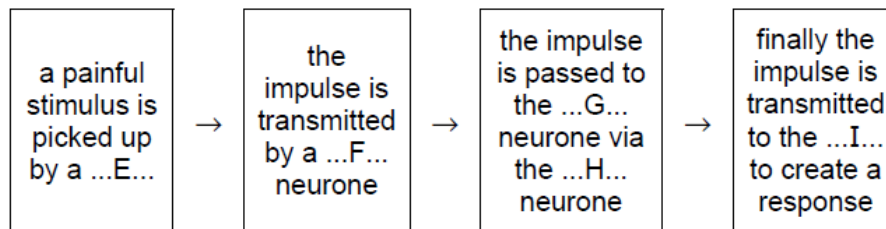
When a bright light is shone into the eye, the pupil becomes smaller.

Which statement explains this response?

- A Ciliary muscles in the eye contract.
- B Circular muscles in the iris contract.
- C Sensory cells in the iris detect the bright light.
- D Sensory neurones stimulate the ciliary muscles in the iris.

8. Nov/2022/Paper_12/No.24

The flow chart describes a reflex action.



Which row correctly fills the flow chart?

	E	F	G	H	I
A	effector	relay	motor	sensory	brain
B	effector	sensory	relay	motor	receptor
C	receptor	sensory	motor	relay	effector
D	receptor	motor	sensory	relay	brain

9. Nov/2022/Paper_12/No.25

A patient shows symptoms of unexplained weight loss, severe thirst and frequent need of urination.

A test shows high levels of glucose in the urine.

Which condition is diagnosed?

- A cardiovascular disease
- B diabetes
- C anaemia
- D obesity

10. Nov/2022/Paper_12/No.26

Which graph shows the lengths of the biceps and triceps muscles in the upper arm when the elbow joint is fully extended and the arm is straight?

