

Revision Sheet

IGCSE Biology · Unit 14 Coordination and response

24 vocabulary items · 34 marks of exam questions (8 questions)

Part 1 · Vocabulary review (24 items). The terms this unit is examined on most. Mark it yourself from the answer key.

Section A · Chinese to English

Write the English word.

1.		[1]
2.		[1]
3.		[1]
4.		[1]
5.		[1]
6.		[1]
7.		[1]
8.		[1]
9.		[1]
10.		[1]
11.		[1]
12.		[1]
13.		[1]
14.		[1]
15.		[1]
16.		[1]
17.		[1]

18.		[1]
19.		[1]
20.		[1]
21.		[1]
22.		[1]
23.		[1]
24.		[1]

Part 2 · Exam questions (34 marks, 8 questions) begins on the next page. They are ordered easy to difficult and none of them has been set before.

- 25** What would be the pupil size and lens shape of a person reading a mobile phone text message in a brightly lit room?

☐

	pupil size	lens shape
A	large	fat
B	large	thin
C	small	fat
D	small	thin

- 26** What describes how the body maintains a constant internal temperature on a hot day?

☐

- A** Vasoconstriction increases blood flow to the skin surface capillaries.
B Vasoconstriction decreases blood flow to the skin surface capillaries.
C Vasodilation increases blood flow to the skin surface capillaries.
D Vasodilation decreases blood flow to the skin surface capillaries.

- 27** When the blood glucose concentration is low, which hormone is released and which organ releases it?

☐

	hormone	organ
A	glucagon	liver
B	glucagon	pancreas
C	insulin	liver
D	insulin	pancreas

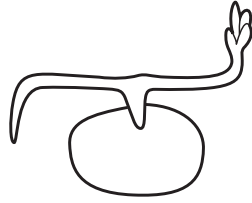
- 28** A toxin that is the same shape as a neurotransmitter prevents muscle contraction.

☐

Which statement explains why the toxin prevents muscle contraction?

- A** The toxin blocks the binding of neurotransmitters to receptors on motor neurones.
B The toxin increases the release of neurotransmitters from relay neurones.
C The toxin increases the release of neurotransmitters from sensory neurones.
D The toxin stimulates impulses in motor neurones.

29 The diagram shows the shoot and root of a seedling, responding to gravity.



Which row shows where the auxin accumulates and the effect of this in the shoot?

	accumulates	effect
A	lower surface	inhibits cell elongation
B	lower surface	promotes cell elongation
C	upper surface	inhibits cell division
D	upper surface	promotes cell division

30 (a) (i) Describe the role of the mammalian nervous system.

.....

.....

..... [1]

(ii) State the **two** parts of the **central** nervous system.

1

2 [2]

(b) Fig. 5.1 is a diagram showing a reflex arc.

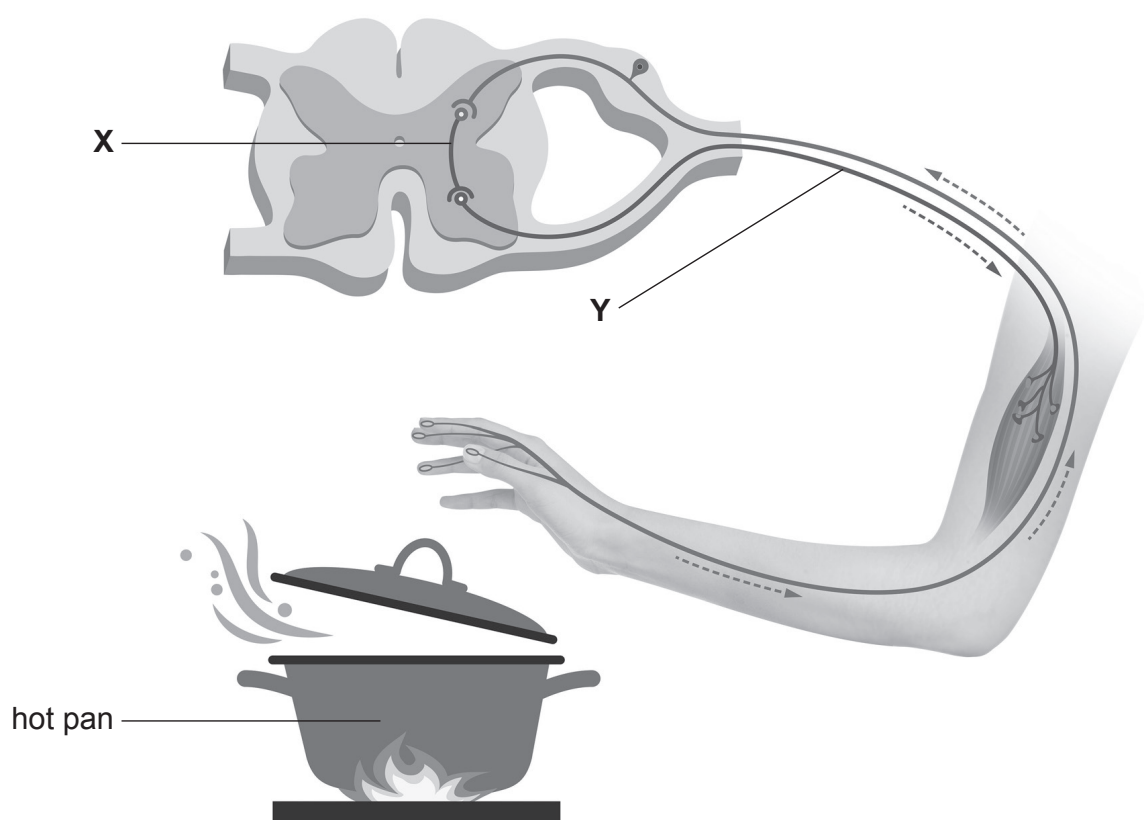


Fig. 5.1

Complete the sentences about the reflex arc.

The hot pan shown in Fig. 5.1 is the in this reflex arc.

The arrows shown in Fig. 5.1 represent the movement of an electrical
..... along the neurones.

X is a neurone and Y is a neurone.

A junction between two neurones is called a

[5]

[Total: 8]

31 (a) Complete the sentences using words from the list.

Each word may be used once, more than once or not at all.

movement

muscles

nerve

organisms

receptor

reflex

sense

tissues

The eye is a organ. The eye is made from a group of

The cells in the retina detect light.

[3]

(b) Fig. 4.1 is a diagram of the parts of the eye.

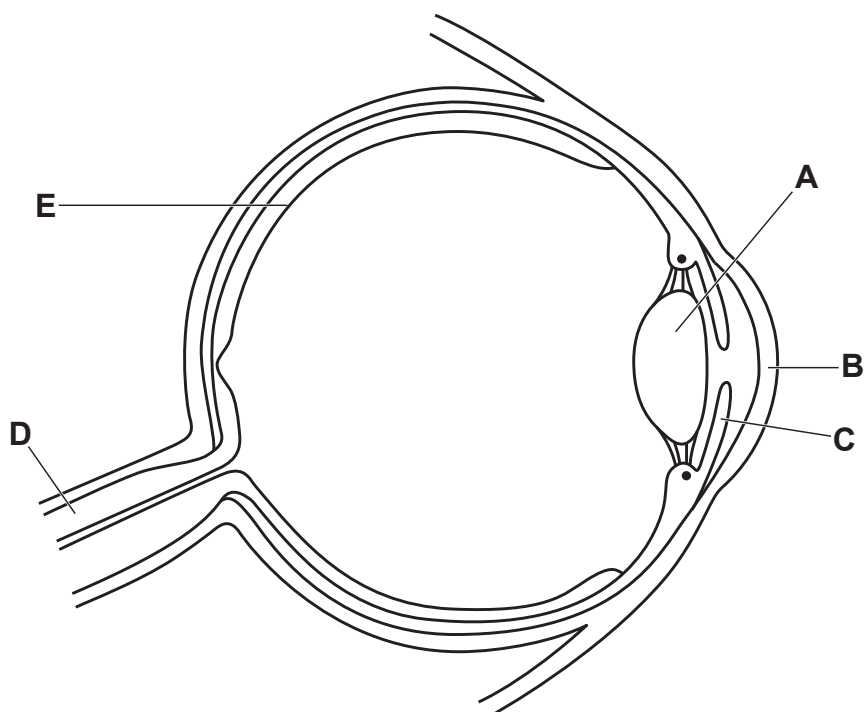


Fig. 4.1

(i) Draw an **X** on Fig. 4.1 to show the position of the blind spot.

[1]

(ii) Identify the letters on Fig. 4.1 that represent the:

cornea

iris

retina

optic nerve.

[4]

(iii) Complete the table by describing the function of some of the structures of the eye.

structure	function
iris	
lens	

[2]

[Total: 10]

32 Insulin is a protein made by cells in the pancreas.

Fig. 2.1 shows how insulin is made in a pancreatic cell.

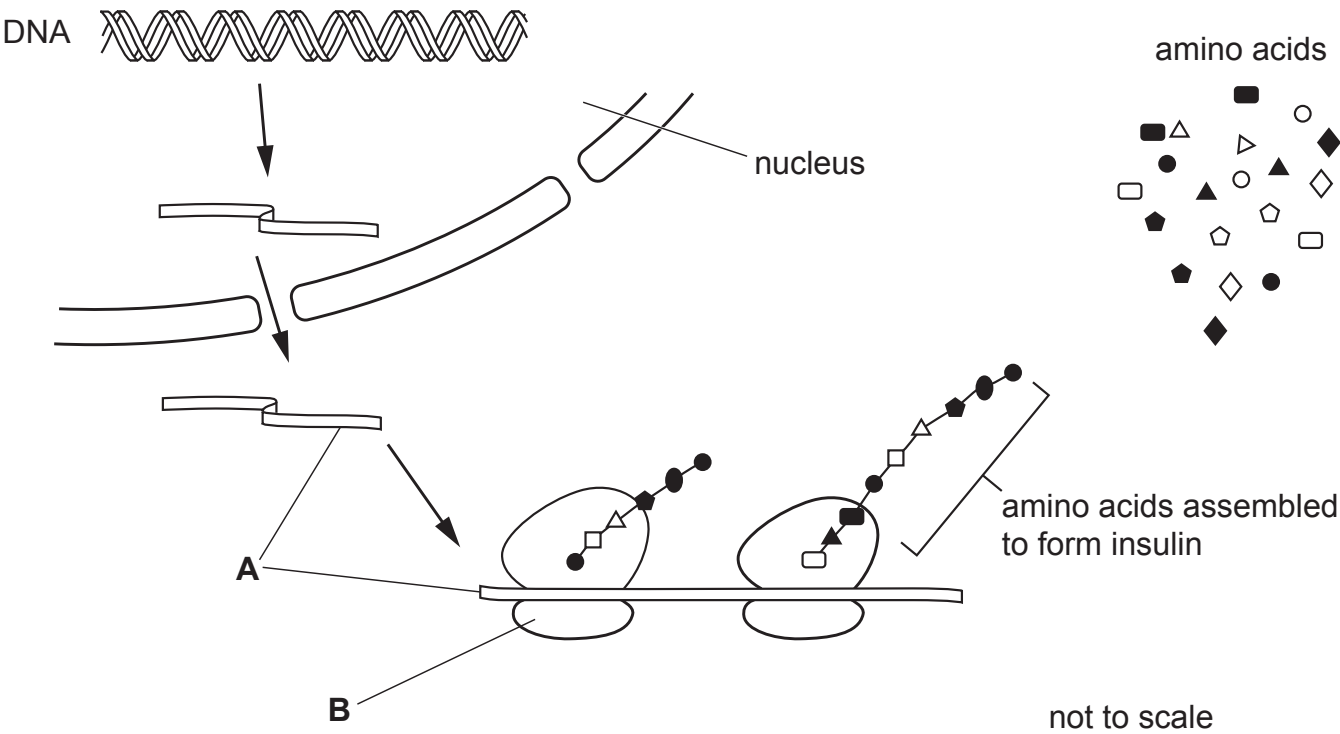


Fig. 2.1

(a) (i) State the name of molecule **A** in Fig. 2.1.

..... [1]

(ii) State the name of structure **B** in Fig. 2.1.

..... [1]

(iii) Explain the role of molecule **A** in protein synthesis, as shown in Fig. 2.1.

[3]

(b) Insulin is secreted from cells in the pancreas when the concentration of glucose in the blood increases.

Outline the role of insulin.

[4]

(c) State the names of **two** substances, **other than** insulin, that are secreted by the pancreas.

1

2

[2]

[Total: 11]