



EXAMINATIONS COUNCIL OF ESWATINI
Eswatini General Certificate of Secondary Education

CANDIDATE
NAME

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BIOLOGY

6884/01

Paper 1 Short Answers

October/November 2023

1 hour

Candidates answer on the Question Paper.

No additional materials are required.

READ THESE INSTRUCTIONS FIRST

Write your Centre number, candidate number and name in the spaces provided.

Write your answers in dark blue or black pen.

You may use an HB pencil for any diagrams, graphs or rough working.

Do **not** use staples, paper clips, glue or correction fluid.

Do **not** write on the barcode.

Answer **all** questions.

You may use an electronic calculator.

You may lose marks if you do not show your working or use appropriate units.

The number of marks is given in brackets [] at the end of each question or part question.

For Examiner's Use

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This document consists of **8** printed pages.

1 Living organisms are made up of cells.

Match the parts of the cells in Fig. 1.1 to their functions.

One has been done for you.

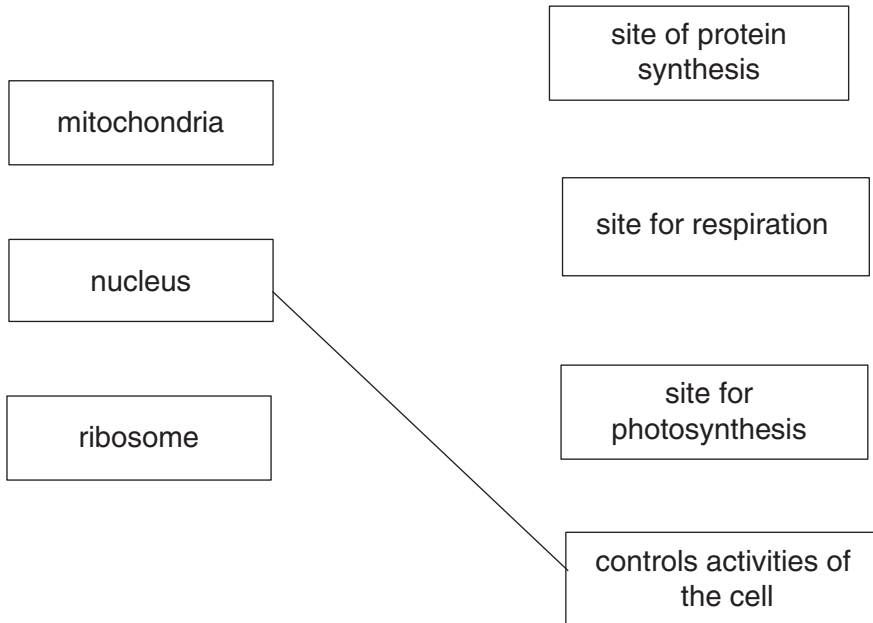


Fig. 1.1

[2]

2 Fig. 2.1 shows two arthropods.

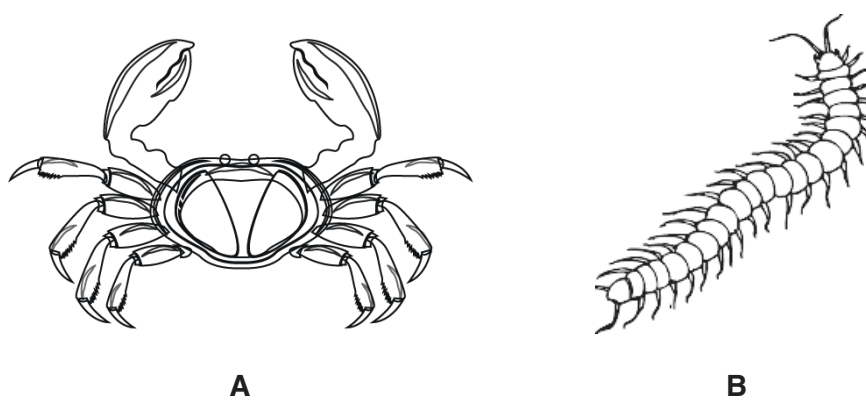


Fig. 2.1

State the class to which arthropods **A** and **B** belong.

A

B [2]

3 (a) Name the blood vessel that transports amino acids from the ileum to the liver.
..... [1]

(b) Describe what happens to excess amino acids in the liver.
.....
.....
..... [2]

4 Fig. 4.1 A shows a potted bean plant in a dark cupboard. Fig. 4.1 B shows the same plant a week after the pot had been tipped on its side.

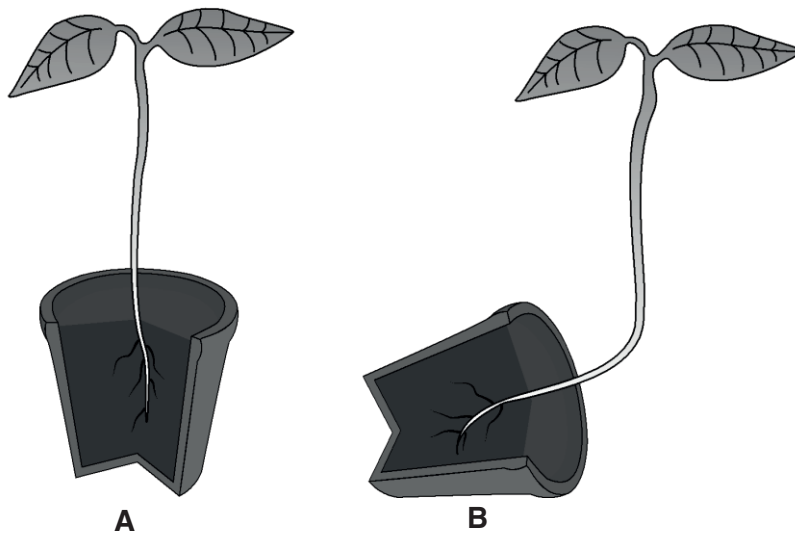


Fig. 4.1

(a) State the response shown by the stem in Fig. 4.1 B.
..... [1]

(b) Describe how auxins caused this response.
.....
.....
..... [2]

5 Fig. 5.1 shows a reflex arc.

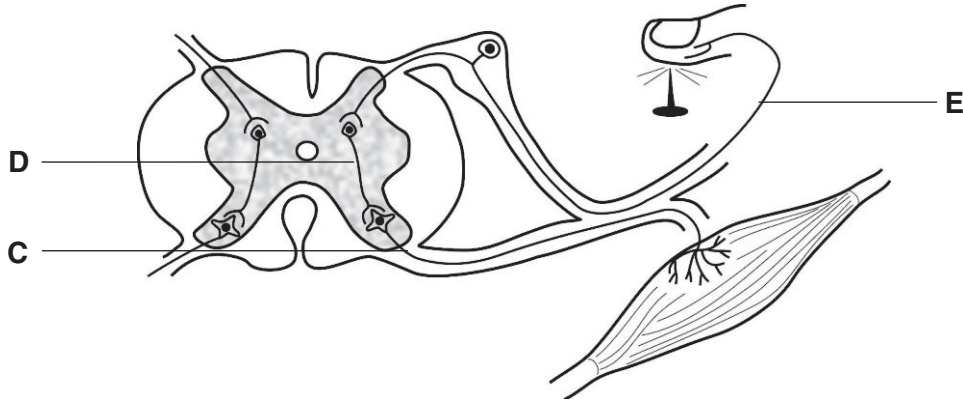


Fig. 5.1

(a) Use a label line with letter **F** to identify an effector on Fig. 5.1. [1]

(b) Arrange the letters **C**, **D** and **E** in Fig. 5.1 in the order in which an impulse flows after the finger is pricked by the pin.

..... [1]

6 A student stops reading a hand-held book and reads from a chalkboard a few metres away.

Complete Table 6.1 with a tick (✓) against the correct description of the changes that occur in the eye and a cross (✗) against an incorrect description.

Table 6.1

changes in the eye	✓/✗
light rays more refracted	
ciliary muscles relax	
lens become thicker and more convex	
suspensory ligaments become taut	

[3]

7 Some species of plants are self-pollinated.

Describe the disadvantages of self-pollination.

.....

 [2]

8 Fig. 8.1 shows some of the changes that may take place during the menstrual cycle.

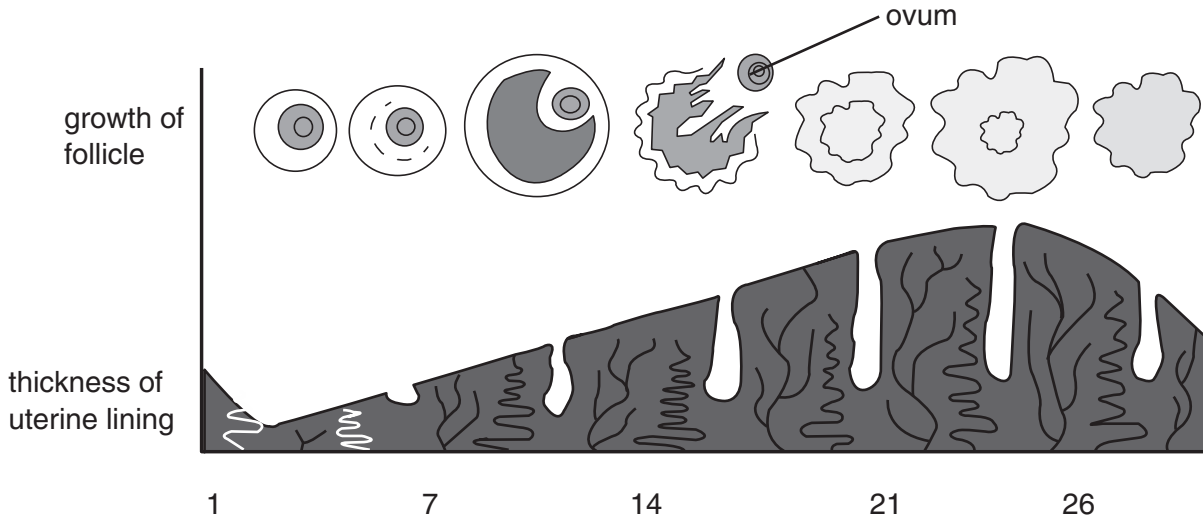


Fig. 8.1

(a) Describe the observed changes in the follicle and the thickness of the uterine lining between days 2 and 10 in Fig. 8.1.

.....

.....

..... [2]

(b) Sexual intercourse on certain days of the cycle may result in fertilisation.

Explain why fertilisation is unlikely to occur if sexual intercourse occurs on day 26 of the cycle in Fig. 8.1.

.....

.....

..... [2]

9 (a) Explain why sickle cell anaemia is given its name.

..... [1]

(b) Suggest why a person with sickle cell anaemia may lack energy.

.....

..... [1]

10 Cancer is one of the common diseases affecting people all over the world.

(a) Name **one** factor that may promote the growth of cancer cells.

..... [1]

(b) State **one** way in which cancer is treated.

..... [1]

11 In mice, the allele for black fur (**B**) is dominant over the allele for white fur (**b**).

Complete the genetic diagram to show the inheritance of coat colour in mice.

parental phenotype	black		black	
parental genotype	
F1 genotype	BB	Bb	Bb	bb
F1 phenotype [2]

12 Inheritance of human blood groups is an example of variation.

State, with a reason, the type of variation shown by the human blood groups.

type

reason

..... [2]

13 Fig. 13.1 shows a food web.

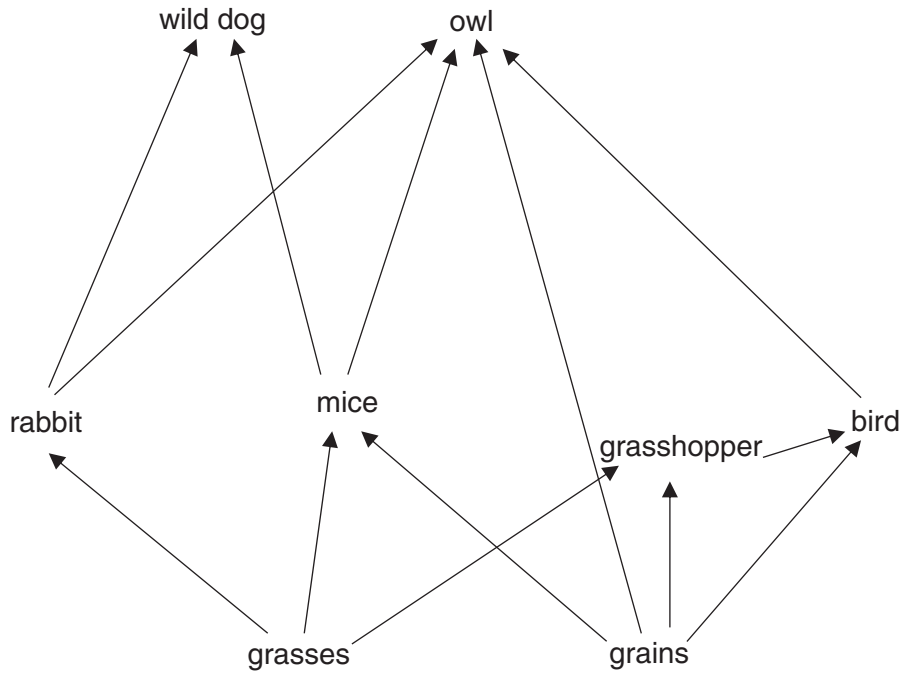


Fig. 13.1

(a) Name an organism that is a tertiary consumer in Fig. 13.1.

..... [1]

(b) Explain why it is more of an advantage to owls to eat grains rather than grasshoppers.

.....
.....
..... [2]

(c) State **two** reasons why biodiversity is important.

1
.....
.....
2
.....
..... [2]

14 Fig. 14.1 shows the results of an experiment to investigate transpiration.

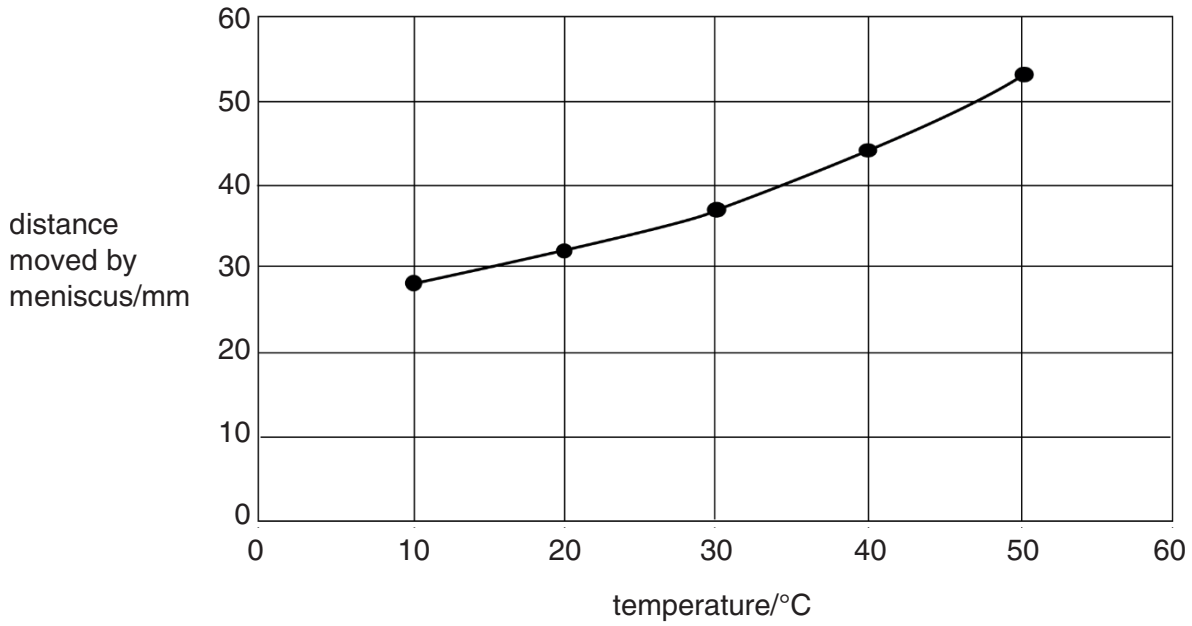


Fig. 14.1

(a) Name the instrument used to investigate transpiration.

..... [1]

(b) Using Fig. 14.1, state how transpiration rate is affected by temperature.

.....
..... [1]

15 Describe the use of yeast in bread making.

.....
.....
.....
..... [2]

16 State **two** ways in which high blood pressure can be prevented.

1
2 [2]

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