

EXAMINATIONS COUNCIL OF SWAZILAND
in collaboration with
UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
Swaziland General Certificate of Secondary Education

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BIOLOGY

6884/01

Paper 1 Short Answers

October/November 2012

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 on all the work you hand in.

Write in dark blue or black pen.

You may use a soft pencil for any diagrams, graphs or rough working.

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

DO NOT WRITE IN ANY BARCODES.

Answer **all** questions.

Write your answers in the spaces provided on the question paper.

You may use a calculator.

At the end of the examination, fasten all your work securely together.

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 **9** printed pages and **3** blank pages.

1 Fig. 1.1 shows examples of living organisms.

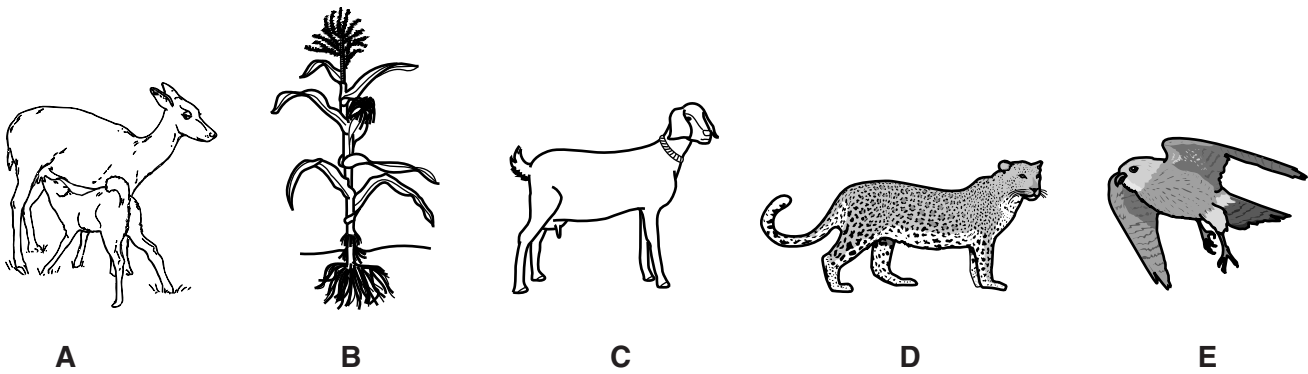


Fig. 1.1

(a) State the characteristic of living organisms shown by the smaller of the two animals shown in **A** in Fig. 1.1.

.....[1]

(b) State two visible characteristics of animal **E** that identify it as a bird.

1.

2.[2]

2 A food sample produced a purple colour with biuret reagent.

State the nutrient present in the food sample.

.....[1]

3 Fig. 3.1 shows a cross section of a leaf.

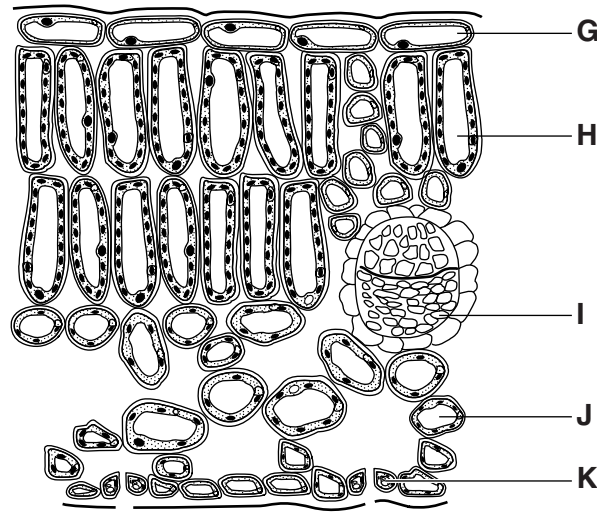


Fig. 3.1

(a) State the letters, in Fig. 3.1, that label

(i) palisade cell,

(ii) guard cell.

[2]

(b) Name the mineral ion necessary for the formation of proteins.

.....[1]

4 State the term that describes undigested cellulose, which forms the bulk of undigested food.

.....[1]

- 5 Fig. 5.1 shows the transfer of materials from the blood to body cells.

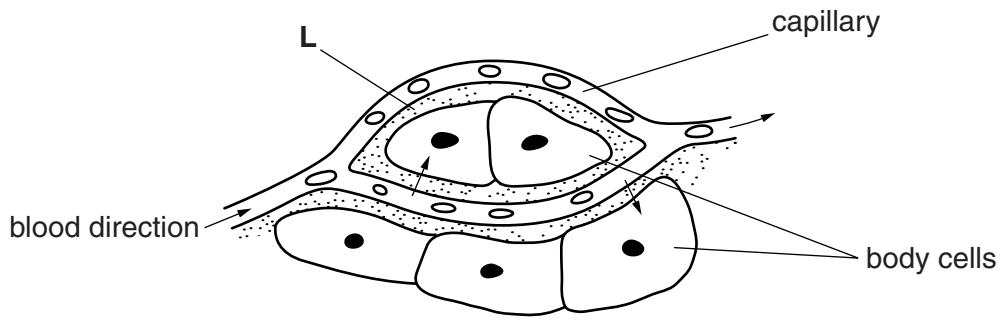


Fig. 5.1

- (a) Name the fluid that is represented by **L** in Fig. 5.1.

.....[1]

- (b) Name two substances transferred from the blood to the cells.

.....[2]

6 One of the functions of the skin of mammals is homeostasis.

(a) Define *homeostasis*.

..... [1]

(b) State the effect of very cold weather on the arterioles in the skin of humans.

..... [1]

7 Explain what is meant by the term *drug*.

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

8 Describe a natural method of birth control.

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

- 9 Fig. 9.1 shows a representation of two chromosomes.

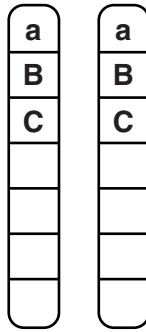


Fig. 9.1

- (a) Explain what is meant by the term *chromosome*.

..... [2]

- (b) State an example of a pair of alleles from the chromosomes in Fig. 9.1.

..... [1]

- 10 Fig. 10.1 is a genetic diagram showing inheritance of a gap between the front teeth of human beings.

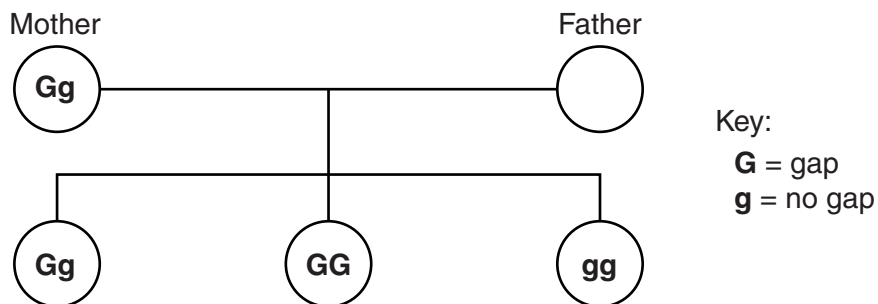


Fig. 10.1

- (a) State the phenotype of the mother.

..... [1]

- (b) State the genotype of the father.

..... [1]

11 Name the structures described by the following statements:

(a) the cells that carry oxygen in the blood,

..... [1]

(b) the cell fragments that are involved in clotting,

..... [1]

(c) the chamber of the heart that pumps blood to the lungs.

..... [1]

12 Syphilis is a sexually transmitted infection.

(a) State two signs or symptoms of syphilis.

1.

2. [2]

(b) State how syphilis is treated.

..... [1]

13 Fig. 13.1 shows a horizontal section of an eye.

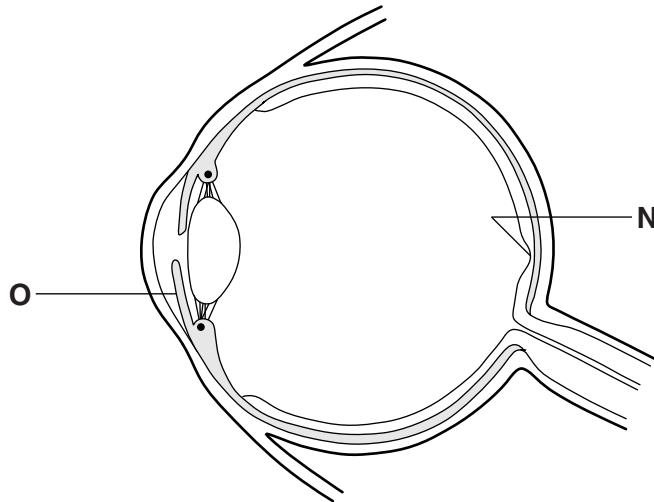


Fig. 13.1

(a) Name the structure labelled N in Fig. 13.1.

..... [1]

(b) State the function of structure O.

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

14 The lion, *Panthera leo*, leopard, *Panthera pardus* and the domestic cat, *Felis catus* are members of the cat family.

(a) Which cats in the list are in the same genus?

..... [1]

(b) State the system of naming organisms used when referring to the lion as *Panthera leo*.

..... [1]

15 A pit latrine is situated close to a river, causing sewage to flow into the river.

(a) State the term used to describe this contamination of river water.

..... [1]

(b) Describe an effect of the sewage on aquatic organisms.

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

16 (a) Large areas of forest are cleared to provide land for farming.

State the term used to describe the removal of large numbers of trees.

..... [1]

(b) Food production has been increased by using modern agricultural practices.

State two ways by which modern technology has improved agricultural practices.

1.

2. [2]

17 Describe why it is important to conserve species.

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

