



EXAMINATIONS COUNCIL OF SWAZILAND
Swaziland General Certificate of Secondary Education

CANDIDATE
NAME

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CENTRE
NUMBER

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NUMBER

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BIOLOGY

6884/01

Paper 1 Short Answers

October/November 2018

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 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 if you do not 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 and **4** blank pages.

- 1 The scientific name for the human being is *Homo sapiens*.

State what level of classification the name *Homo* represents.

..... [1]

- 2 Fig. 2.1 shows an arthropod.

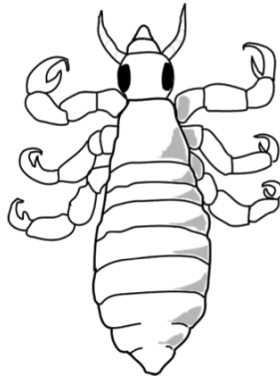


Fig. 2.1

State **two** characteristics of the organism in Fig. 2.1 which identify it as an arthropod.

1

2 [2]

- 3 Fig. 3.1 shows a pair of cells found on the lower surface of leaves.

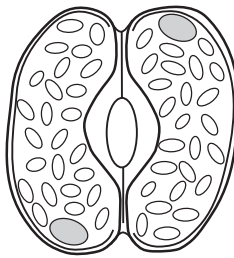


Fig. 3.1

- (a) Name the cells shown in Fig. 3.1.

..... [1]

- (b) State **one** feature of the cells in Fig. 3.1 that is not found in root hair cells.

..... [1]

4 State the equation for anaerobic respiration in muscles using symbols.

..... [1]

5 Fig. 5.1 shows bones and muscles in a human arm.

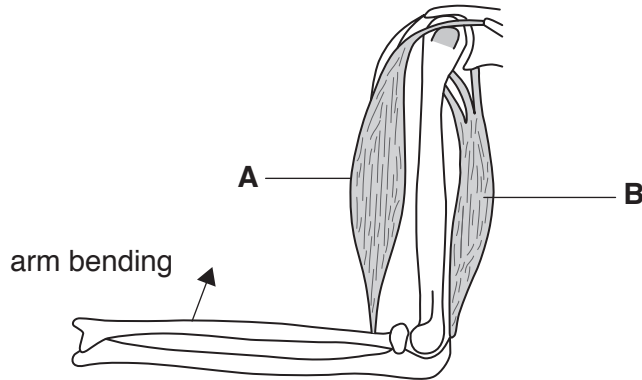


Fig. 5.1

Describe the part played by muscles **A** and **B** in bending the arm in the direction shown by the arrow in Fig. 5.1.

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

6 Describe how a balanced diet of a fourteen year old boy will change when he is a fifty year old manual worker.

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

7 Fig. 7.1 shows the chromosomes present in the nucleus of a gamete.

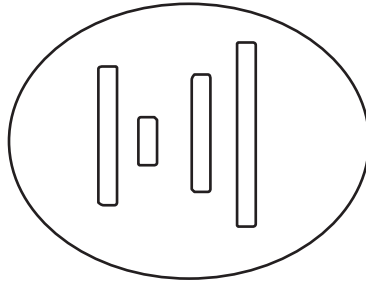


Fig. 7.1

(a) State the number of chromosomes in the body cells of this organism.

..... [1]

(b) Name the type of cell division that results in the formation of gametes.

..... [1]

8 Describe how excess glucose is processed for storage in the liver.

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

9 Describe the symptoms of a lack of iron in the diet.

..... [1]

10 The immune system protects the body from infections.

Describe the immune system in terms of phagocytosis.

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

11 Fig. 11.1 shows a section through a flower.

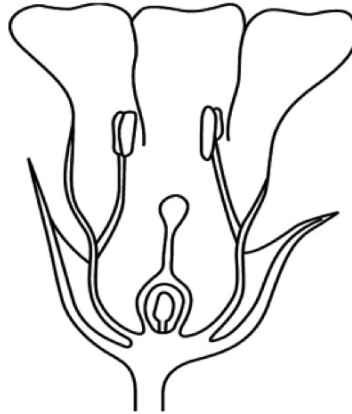


Fig. 11.1

State **two** features of the flower in Fig. 11.1 that identify it as insect-pollinated.

1

2 [2]

12 Mutation is a source of variation.

(a) State **two** factors that increase the rate of mutation.

1

2 [2]

(b) State the type of variation shown by human blood groups.

..... [1]

13 Fig. 13.1 shows a method of birth control.

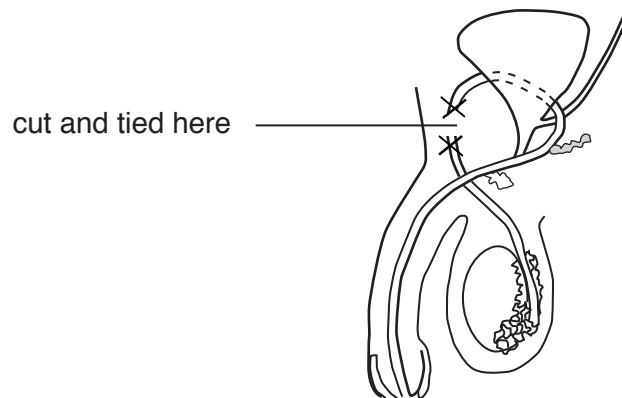


Fig. 13.1

Name the method of birth control shown in Fig. 13.1.

..... [1]

14 (a) State the condition resulting from abnormal cell division that is promoted in the lungs by smoking.

..... [1]

(b) State the name for the movement shown by moths being attracted to a light bulb.

..... [1]

15 Fig. 15.1 shows the front view of the human eye exposed to dim light.

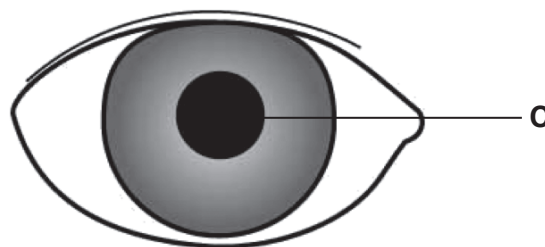


Fig. 15.1

Explain the change that would be observed in part C if bright light is shone into the eye.

.....

 [2]

16 The skin has receptors and fatty tissue.

State the role of the receptors and fatty tissue in temperature regulation.

receptors

fatty tissue [2]

17 A drug is an externally administered substance that affects chemical reactions in the body.

(a) State **one** medicinal use of the drug penicillin.

..... [1]

(b) State **one** long term effect of alcohol in the human body.

..... [1]

18 Fig. 18.1 shows a food web.

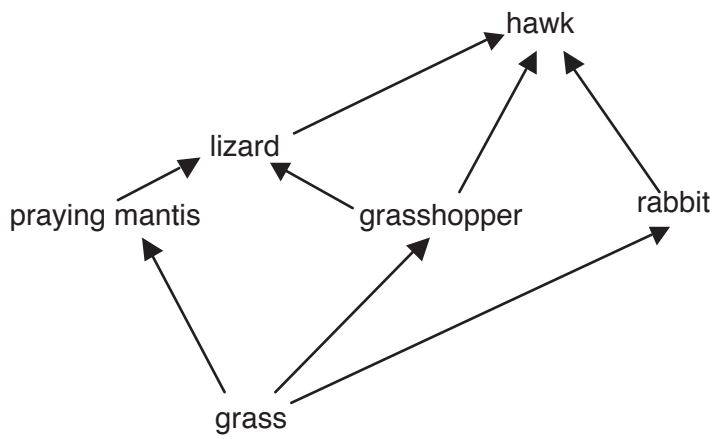


Fig. 18.1

(a) State the principal source of energy for the food web in Fig. 18.1.

..... [1]

(b) Construct a food chain with four trophic levels from the food web in Fig. 18.1.

..... [2]

(c) State an advantage of a short food chain.

..... [1]

19 State **two** undesirable effects of deforestation.

1

2 [2]

20 (a) Name the part of the kidney where water is filtered out of the blood.

..... [1]

(b) The kidney also removes excretory products dissolved in water.

Name **one** of these excretory products.

..... [1]

21 Name the process by which nitrates in the soil are broken down to release nitrogen gas.

..... [1]

