



EXAMINATIONS COUNCIL OF ESWATINI  
Eswatini General Certificate of Secondary Education

CANDIDATE  
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**BIOLOGY**

**6884/01**

Paper 1 Short Answers

**October/November 2020**

**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 the spaces provided.

Write in dark blue or black pen.

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

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.

1 A baby is tickled on the back and laughs.

State the characteristic of living organisms that is shown by the baby when laughing.

..... [1]

2 Orange juice contains vitamin C.

Describe how you can test for vitamin C in the orange juice.

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

3 Fig. 3.1 shows a seed that was germinated in the dark.

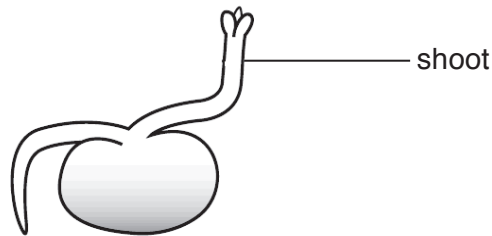


Fig. 3.1

(a) State the type of response shown by the growing shoot.

..... [1]

(b) Explain why the shoot grew in the upward direction as shown in Fig. 3.1.

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

4 Fig. 4.1 shows a cluster of red wild fruit.

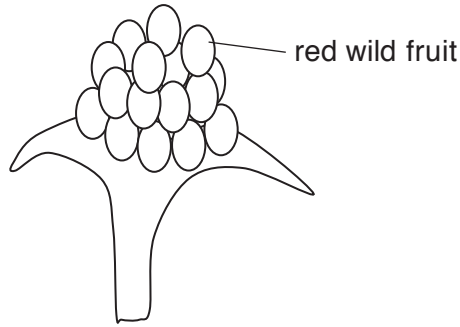


Fig. 4.1

State and explain the main agent of dispersal for the fruit in Fig. 4.1.

agent .....

explanation .....

..... [2]

5 Describe how male circumcision can help to control the spread of HIV/AIDS.

.....

.....

..... [2]

6 Fig. 6.1 shows part of a DNA molecule.

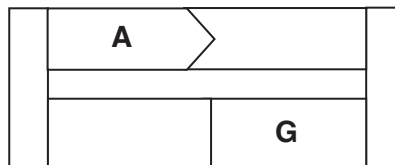


Fig. 6.1

Use the letters **A**, **C**, **G** or **T** to label the missing paired bases in Fig. 6.1.

[2]

- 7 Fig. 7.1 shows the shape of the lens of the eye when viewing an object at different distances.



Fig. 7.1

- (a) State the term used to describe the change in the shape of the lens from **A** to **B**.

..... [1]

- (b) Describe the changes in the eye that resulted in the change in shape of the lens from **A** to **B**.

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

- 8 Fig. 8.1 shows a cross-section of a stem.

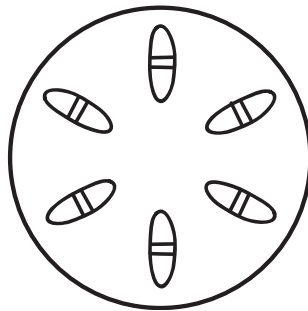


Fig. 8.1

A systemic pesticide is sprayed on the leaves of a crop plant and the stem is affected.

Use a label line and the letter **G** to identify the part of the stem in Fig.8.1 that would transport the systemic pesticide throughout the plant.

[1]

9 Fig. 9.1 shows a pathway of blood through the heart.

lungs → blood vessel **P** → left atrium → bicuspid valve → valve **S** → aorta

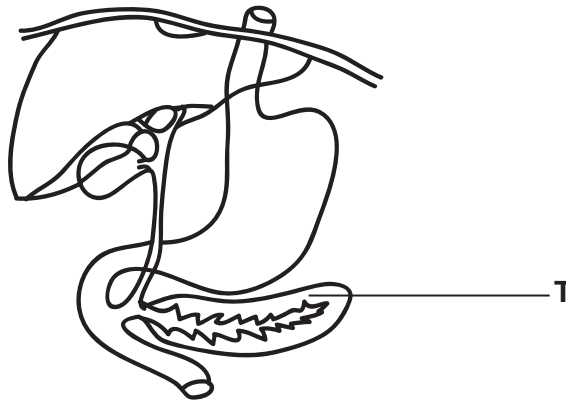
**Fig. 9.1**

Name blood vessel **P** and valve **S**.

**P** .....

**S** ..... [2]

10 Fig. 10.1 shows part of the human digestive system.



**Fig. 10.1**

State **two** functions of the part labelled **T** on Fig. 10.1.

1 .....

.....

2 .....

..... [2]

11 Name **two** substances that can pass through the capillary walls into the tissue fluid.

..... [1]

12 The menstrual cycle is controlled by hormones.

Match the hormones to their functions by drawing lines between them. One has been done for you.

FSH	maintains the lining of the uterus
LH	thickens and repairs the lining of the uterus
progesterone	causes a mature ovum to be released from the ovary
oestrogen	causes an ovum to mature in ovary
	stimulates secretion of FSH

[3]

13 Fig. 13.1 shows a fungus reproducing.

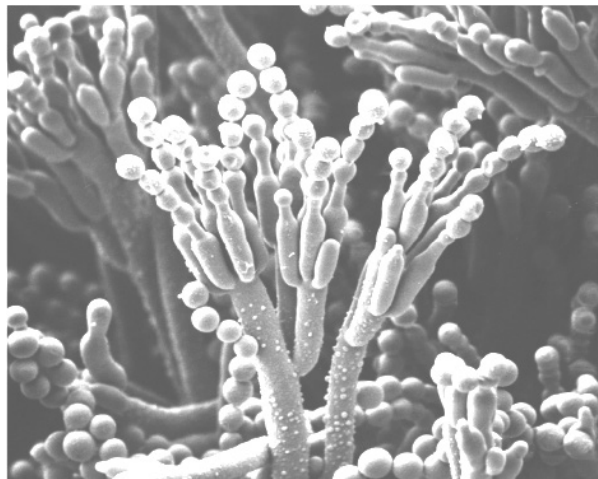


Fig. 13.1

State with a reason the type of reproduction shown by the fungus in Fig. 13.1.

type of reproduction .....

reason .....

..... [2]

14 Fig. 14.1 shows a diagram of the human brain.

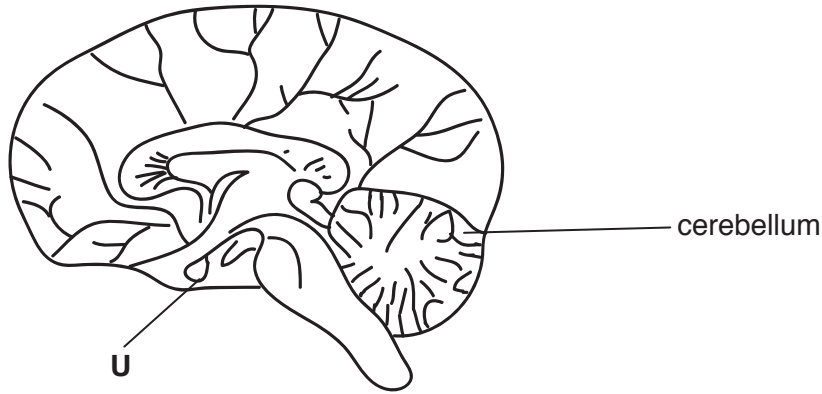


Fig. 14.1

(a) Name the part labelled **U** in Fig. 14.1

..... [1]

(b) State the function of the cerebellum.

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

15 Name the blood vessel that transports amino acids from the small intestines to the liver.

..... [1]

16 Complete the following sentence about gaseous exchange by filling in the missing words.

“When breathing in, the ..... flattens, whilst external intercostal muscles ..... and pressure inside the thorax .....” [3]

17 State **two** reasons why it is important to conserve species.

1 .....  
.....

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

18 Fig. 18.1 shows a flow diagram representing the nitrogen cycle.

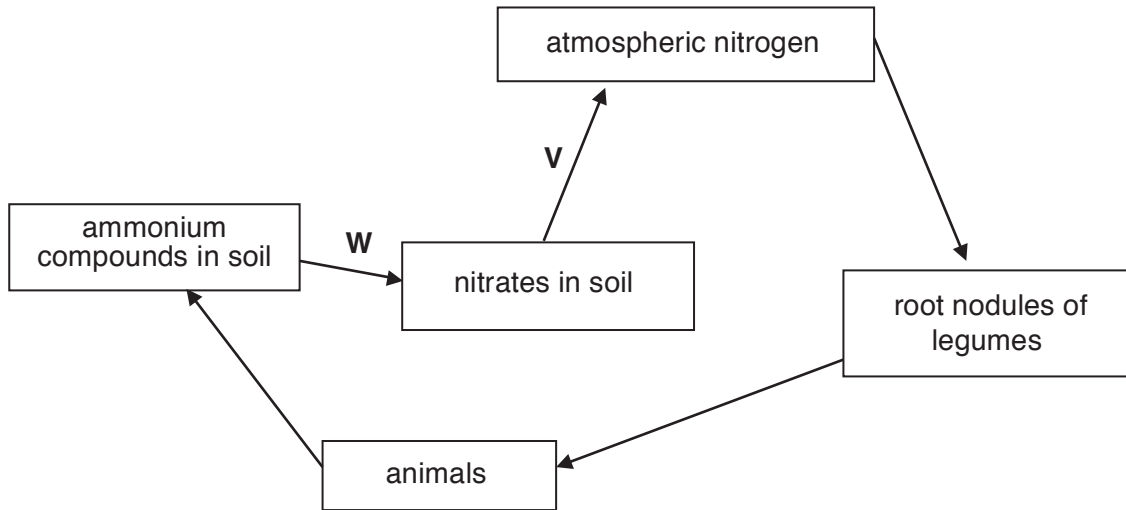


Fig. 18.1

(a) Name the processes represented by the letters V and W.

V .....

W ..... [2]

(b) Some humans eat beef from a cow that has eaten legumes.

Explain the disadvantage in terms of energy loss when humans eat beef rather than legumes.

.....

..... [3]

19 Name **one** substance that causes acid rain.

..... [1]