



EXAMINATIONS COUNCIL OF ESWATINI  
Eswatini General Certificate of Secondary Education

CANDIDATE  
NAME

--

CENTRE  
NUMBER

--	--	--	--	--

CANDIDATE  
NUMBER

--	--	--	--

**BIOLOGY**

**6884/01**

Paper 1 Short Answers

**October/November 2019**

**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 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 any barcodes.

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**

--

This document consists of 7 printed pages and 1 blank page.

1 List the levels of classification of organisms in the correct order below using the words provided in the box. The first level has been completed for you.

species	genus	order
class	phylum	family

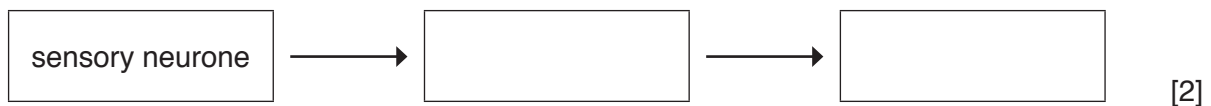
- 1 kingdom
- 2 .....
- 3 .....
- 4 .....
- 5 .....
- 6 .....
- 7 ..... [3]

2 State the products of photosynthesis using their symbols.

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

3 Complete the diagram below by filling in the boxes with words that correctly describe the path taken by a nerve impulse during a reflex action.

The first box has been completed for you.



4 Name **two** substances that should be excluded from the diet of a person suffering from a heart disease.

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

5 State **two** uses of energy in the human body.

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

6 A person sees a snake and instantly runs away.

Describe the role of the hormonal system in bringing about this response.

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

7 Fig. 7.1 shows a sample of blood as seen under the light microscope.

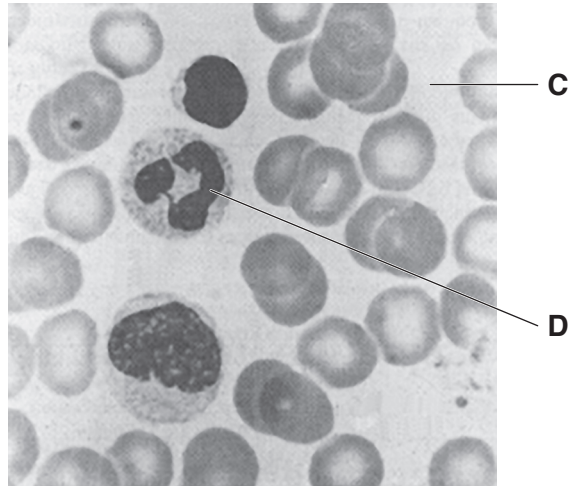


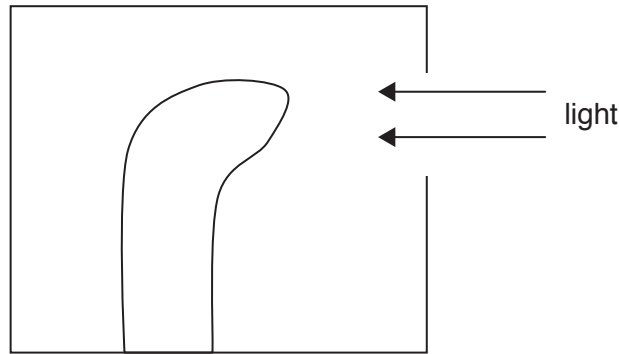
Fig. 7.1

Name the components of blood labelled **C** and **D**.

**C** .....

**D** ..... [2]

8 Fig. 8.1 shows a plant shoot responding to directional light.



**Fig. 8.1**

(a) Name the hormone which causes the response in Fig. 8.1.

..... [1]

(b) State the type of response shown by the shoot.

..... [1]

9 (a) Table 9.1 shows changes in the concentration of glucose as filtrate passes through the nephron of a human kidney.

**Table 9.1**

	Bowman's capsule	loop of Henle	collecting duct
glucose concentration/ mMol per dm <sup>3</sup>	6.5	2.5	1.5

Explain the changes in the glucose concentration as the filtrate moves along this nephron.

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

(b) Describe how urea is removed in a dialysis machine.

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

10 Describe **two** ways tissue rejection can be prevented.

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

11 Fig. 11.1 shows an arthropod.



Fig. 11.1

Name **two** features of the organism, shown in Fig. 11.1, that can be used to identify it as an arthropod.

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

12 Fig. 12.1 shows the parts of a bean seed.

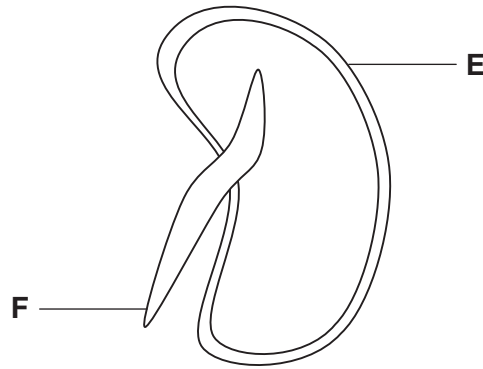


Fig. 12.1

Name the parts of the bean seed labelled E and F.

E .....

F ..... [2]

13 Fig. 13.1 shows the stages in bacterial reproduction.

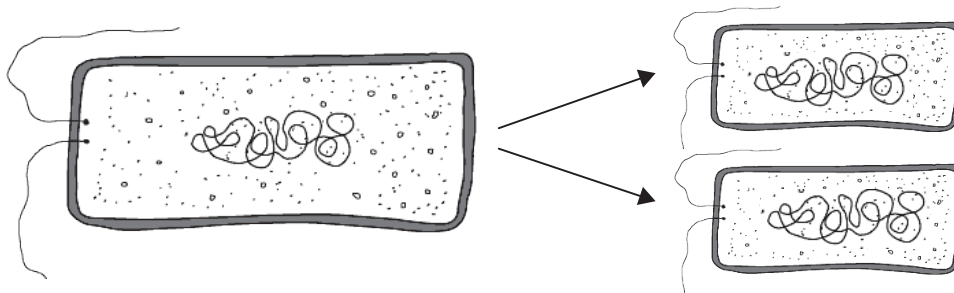


Fig. 13.1

Describe how the bacterial reproduction in Fig. 13.1 differs from sexual reproduction.

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

14 Partial treatment of tuberculosis results in multi-drug resistant tuberculosis (MDR).

Name the process that enables MDR organisms to survive.

..... [1]

15 Oranges picked from the same tree have different sizes.

State the type of variation shown by the oranges.

..... [1]

16 State the sex chromosomes found in normal male gametes.

..... [1]

17 Complete Table 17.1 by describing the changes that take place in the diaphragm, intercostal muscles and thoracic cavity during breathing in.

**Table 17.1**

structure	changes
diaphragm	
internal intercostal muscles	
thoracic cavity	

[3]

18 Name the process that occurs in water as a result of the over-use of nitrogen-containing fertilisers.

..... [1]

19 Name the main nitrogen-containing compounds found in both plants and animals.

..... [1]

20 Explain what would happen to the flow of energy in an ecosystem if energy from the Sun was not available.

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

21 Suggest **two** ways in which recycling would be beneficial to the environment.

1 .....

2 ..... [2]

**[Total: 40]**

**BLANK PAGE**

---

Permission to reproduce items where third-party owned material protected by copyright is included has been sought and cleared where possible. Every reasonable effort has been made by the publisher (ECESWA) to trace copyright holders, but if any items requiring clearance have unwittingly been included, the publisher will be pleased to make amends at the earliest possible opportunity.