

BIOLOGY

EXAMINATION SCHEME

There will be three papers: Papers 1, 2 and 3, all of which must be taken. Papers 1 and 2 will be a composite paper to be taken at one sitting.

PAPER 1: Will consist of fifty multiple-choice objective questions drawn from Section A of the syllabus (the section of the syllabus which is common to all countries). It will carry 50 marks and last for 50 minutes.

PAPER 2: Will consist of six essay questions drawn from the entire syllabus. The paper will be put into three sections, Sections A, B and C.

Section A: Will consist of four questions drawn from Section A of the syllabus.

Section B: Will be for candidates in Ghana only and will be drawn from Section B of the syllabus (ie the section of the syllabus peculiar to Ghana). It will consist of short-structured questions.

Section C: Will be for candidates in Nigeria, Sierra Leone, The Gambia and Liberia and will be drawn from Section C of the syllabus (ie the section of the syllabus containing material for those countries only). It will also consist of short-structured questions.

Candidates will be expected to answer two questions from Section A and all the short-structured questions from **either** Section B **or** Section C.

Each question in Section A will carry 20 marks while the compulsory short-structured questions in Sections B and C will carry 30 marks. The total score will be 70 marks. The paper shall take 1 hour 40 minutes.

PAPER 3: Will be a practical test (for school candidates) or a test of practical work (for private candidates) lasting 2 hours and consisting of three sections: Sections A, B and C.

Section A: This will consist of two compulsory questions drawn from Section A of the syllabus, each carrying 25 marks.

Section B: This will be for candidates in Ghana only. It will consist of one question drawn from Section B of the syllabus and will carry 30 marks.

Section C: This will be for candidates in Nigeria, Sierra Leone, The Gambia and Liberia. It will consist of one question drawn from Section C of the syllabus and will carry 30 marks.

Candidates will be expected to answer all the questions in Section A and one question in either Section B or C. The paper will carry a total score of 80 marks.

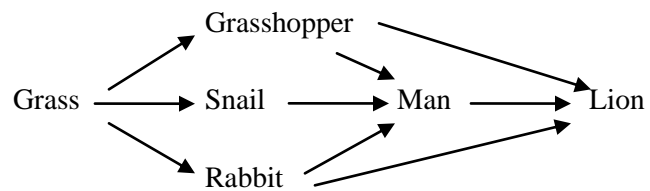
SAMPLE QUESTIONS

PAPER 1

(OBJECTIVES)

1. The organelle in eukaryotic cells which is involved in the intracellular digestion of food is
 - A. Golgi body.
 - B. lysosome.
 - C. mitochondrion.
 - D. ribosome.
2. Which of the following structures is common to *Amoeba*, *Paramecium* and *Euglena*?
 - A. Anal pore
 - B. Contractile vacuole
 - C. Flagellum
 - D. Oral groove

Study the food web below and use it to answer Question 3



3. The tertiary consumer within the web is
 - A. grasshopper.
 - B. rabbit.
 - C. man.
 - D. lion.
4. A company was prohibited from producing bags made from leopard skin as a measure of conserving
 - A. water.
 - B. forest.
 - C. wildlife.
 - D. land.
5. An allele constantly expressed in the appearance of an organism is said to be
 - A. recessive.
 - B. dominant.
 - C. hybrid.
 - D. sex linked.

6. A woman with blood group A is married to a man with blood group B. Both have an offspring who could donate blood to both parents. The genotype of both parents must be

Woman	Man
A. $I^A I^O$	$I^B I^B$
B. $I^A I^O$	$I^B I^O$
C. $I^A I^A$	$I^B I^O$
D. $I^A I^A$	$I^B I^B$

PAPER 2

(ESSAY)

[30 MARKS]

1. a) Name **two** types of aquatic habitats. [2 marks]
- For **each** habitat you named in (a) above, state
- two** plants;
 - two** animals, found in the habitat. [8 marks]
- b) Explain briefly the following terms:
- Allele*;
 - Phenotype*. [4 marks]
- c) State the feeding habit of the following organisms and **two** modifications **each** that help them adapt to it.
- Mosquito larva;
 - Tapeworm. [8 marks]
- d) Explain how sewage causes water pollution [6 marks]
- e) List **two** processes that release carbon to the environment [2 marks]

PAPER 3

(PRACTICAL)

- 1 a) i. Identify the specimens labelled **A** to **E** [5 marks]
- ii. State the role of **each** specimen you have identified. [5 marks]
- iii. Mention the advantages they have derived from living together as a group. [2 marks]

b) Observe specimens **F** and **G** carefully and use them to answer the questions that follow.

- i. Classify specimens **F** and **G** under the headings **phylum** and **class**. [4 marks]
- ii. Make a labelled drawing 8-10 cm long of the lateral view of specimen **G**. [11 marks]
- iii. State **three** adaptations of specimen **G** to its environment. [3 marks]