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 perculiar 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

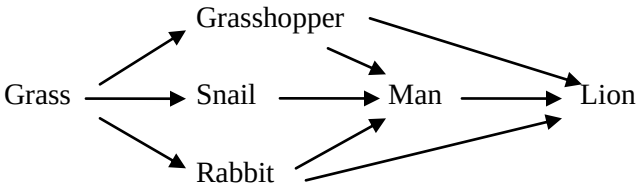
PAPER 1

(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^AI^O	I^BI^B
B.	I^AI^O	I^BI^O
C.	I^AI^A	I^BI^O
D.	I^AI^A	I^BI^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

i. **two** plants;
ii. **two** animals, found in the habitat. [8 marks]

b) Explain briefly the following terms:
i. *Allele*;
ii. *Phenotype*. [4 marks]

c) State the feeding habit of the following organisms and **two** modifications **each** that help them adapt to it.
i. Mosquito larva;
ii. 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]