

BIOLOGY 2
0510

CAMEROON GENERAL CERTIFICATE OF EDUCATION BOARD

General Certificate of Education Examination

JUNE 2019

ORDINARY LEVEL

Subject Title	BIOLOGY
Paper No	2
Subject Code No	0510

Two hours

Answer ALL FIVE questions.

All questions carry 20 marks each for your guidance, the approximate mark for each part of a question is indicated in the brackets

Being each question on a new page.

Give labelled diagram where these will make the answer clearer.

You are advised to read carefully through the question paper before you begin your answers.

You are reminded of the necessity for good English and orderly presentation in your answers.

In calculations you are advised to show all the steps in your working, giving your answer at each stage.

1. (a) State the chemical composition of the following.
- (i) Proteins
 - (ii) Fats
 - (iii) Carbohydrates
- (3, 3, 3, marks)**
- (b) How do you test for
- (i) the presence of reducing sugar in germinating maize seeds?
 - (ii) the presence of fats in meat?
 - (iii) the presence of proteins in meat?
- (5, 3, 3 marks)**
- (Total = 20 marks)**
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2. (a) Draw a large and well labelled diagram of an insect pollinated flower. **(6 marks)**
- (b) Distinguish between pollination and fertilization **(5 marks)**
- (c) How is the
- (i) Coconut fruit
 - (ii) Cotton seed
 - (iii) Mango fruit
- Adapted to their various method of dispersal? **(3, 3, 3 marks)**
- (Total = 20 marks)**
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3. (a) State the function of human skeleton. **(5 marks)**
- (b) Make a labelled diagram of a typical synovial joint. **(5 marks)**
- (c) What is
- (i) Long-sightedness?
 - (ii) Astigmatism?
- (2, 3 marks)**
- (Total = 20 marks)**
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4. (a) Define the following terms:
- (i) Monohybrid cross.
 - (ii) Mutation
 - (iii) Homozygous
- (3, 3, 2 marks)**
- (b) State the causes of mutations. **(4 marks)**
- (c) In a certain variety of squirrels, the fur colour is either grey or black. When a pure breeding black squirrel is crossed with a pure breeding grey squirrels, all the offspring produced had grey fur. When these offspring were allowed to interbreed, the following results were obtained; 428 squirrels with grey fur and 152 squirrels with black fur.

Using appropriate symbols and diagrams explain the genetics of these crosses. **(6 marks)**

(d) How does bread mould reproduce asexually? **(2 marks)**

(Total = 20 marks)

5. (a) Define the following terms as used in genetic engineering:

(i) Restriction enzyme.

(ii) Recombinant DNA.

(iii) Cloning.

(3, 3, 3 marks)

(b) How are cereal plants important to mammals?

(6 marks)

(c) Describe how atmospheric Nitrogen is made available for plant use.

(5 marks)

(Total = 20 marks)