

Human Biology 2  
0565

CAMEROON GENERAL CERTIFICATE OF EDUCATION BOARD

General Certificate of Education Examination

JUNE 2017



ORDINARY LEVEL

Subject Title	Human Biology
Paper No.	2
Subject Code No.	0565

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Two and a half hours

You are required to answer FIVE questions choosing THREE from Section A and TWO from section B. All the questions carry equal marks and marks allocated to parts of questions are indicated.

Extra questions answered from each section shall NOT be marked.

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

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## SECTION A

Answer THREE questions from this section

Human Biology 1  
0202

1. A balanced diet is essential for good health in man.
- (a) What are the components of a balanced diet?
- (b) List the general chemical composition of the energy-giving food components of a balanced diet.
- (c) Describe the digestion of a piece of bread in the mouth and stomach.

(7, 3, 10 marks)

2. (a) Describe the mechanism of inhalation (inspiration).
- (b) Give FOUR adaptations of the respiratory surface to gaseous exchange.
- (d) Distinguish between the following pairs:
- (i) Inhaled air and exhaled air.
- (ii) Aerobic respiration and anaerobic respiration.

(6, 4, 4, 6 marks)

3. (a) Draw a large and neatly labelled diagram of the transverse section through the spinal cord.
- (b) Describe how impulses are transmitted across the synapse.
- (c) In a tabular form, distinguish between nervous and hormonal coordination.

(8, 7, 5 marks)

4. (a) List the cellular components of blood and state their main functions.
- (b) Draw a large and neatly labelled diagram of the longitudinal section of the human heart and use arrows to indicate the direction of blood flow.
- (c) Describe the process of tissue fluid formation.

(6, 9, 5 marks)

5. (a) Define the following terms as commonly used in genetics:
- (i) Genes.
- (ii) Sex-linkage.
- (iii) Phenotype
- (b) A woman of blood group A claims that a man of blood group B is the father of her son of blood group O. With the aid of appropriate genetic crosses and symbols show that her claim could be justified.
- (c) Albinism is a hereditary disease in man caused by a recessive allele (a). Determine the genotypes and phenotypes of the offspring of the union between an albino man and a normal woman who is a carrier of the condition.

(6, 8, 6 marks)

## SECTION B

Answer TWO questions from this section.

6. (a) Define the following terms:  
 (i) Incubation period  
 (ii) Signs of a disease  
 (iii) Symptoms of a disease.
- (b) Describe the following diseases under the headings: causative agent, mode of transmission, signs and symptoms and methods of control  
 (i) Gonorrhoea  
 (ii) Common cold...
- (c) Differentiate between bacteria and viruses.

(6, 10, 4 marks)

7. Sewage is liquid waste from homes and industries.
- (a) Why is it absolutely necessary to treat raw sewage before disposal in a town or city?
- (b) Compare the activated sludge and biological filter methods of sewage treatment.
- (d) Name three diseases transmitted by contamination of food or water by untreated sewage, and give their causative agents.

(5, 9, 6 marks)

8. (a) What are the qualities of a good hospital?
- (b) Give the benefits of the following to a community:  
 (i) Playgrounds  
 (ii) Antenatal clinics  
 (iii) Reformatory schools

(7, 4, 5, 4 marks)

9. (a) Construct an annotated schematic diagram of the Nitrogen cycle.
- (b) How would the activity of the following organisms affect the nitrogen cycle:  
 (i) Leguminous plants  
 (ii) Decay bacteria?
- (c) List the consequences of global warming.

(8, 8, 4 marks)