

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

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.

SECTION A

Answer **THREE** questions from this section

Human Biology 2
0202

1. A balanced diet is essential for good health in man.
- What are the components of a balanced diet?
 - List the general chemical composition of the energy-giving food components of a balanced diet.
 - Describe the digestion of a piece of bread in the mouth and stomach.
- (7, 3, 10 marks)

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

(6, 4, 4, 6 marks)

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

(8, 7, 5 marks)

4.
 - List the cellular components of blood and state their main functions.
 - 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.
 - Describe the process of tissue fluid formation.

(6, 9, 5 marks)

5.
 - Define the following terms as commonly used in genetics:
 - Genes.
 - Sex-linkage.
 - Phenotype
 - 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.
 - 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)