

Human Biology 2
0565

CAMEROON GENERAL CERTIFICATE OF EDUCATION BOARD

General Certificate of Education Examination

JUNE 2020

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.

40	1.0
30	2.0
25	1.0
20	0.5
10	0.5



Turn Over

SECTION A

Answer THREE questions from this Section

1. (a) (i) Define the term respiration.
(ii) Distinguish between breathing and gaseous exchange. **(2, 4 marks)**
- (b) Describe the mechanism of gaseous exchange in the alveolus. **(8 marks)**
- (c) State the adaptations of the alveolus to gaseous exchange. **(6 marks)**
(Total = 20 marks)

2. (a) Name the THREE main types of neurones and state the functions of each. **(6 marks)**
- (b) Draw a large and neatly labelled diagram of the mammalian brain. **(7 marks)**
- (c) State the functions of the following parts of the brain:
(i) Cerebrum
(ii) Medulla Oblongata
(iii) Cerebellum. **(3, 2, 2 marks)**
(Total = 20 marks)

3. (a) State SIX characteristics common to most enzymes. **(6 marks)**
- (b) The table below shows the results of an investigation of the effects of temperature on an enzyme-controlled reaction.

Temperature in degree Celsius (°C)	Rate of chemical reaction (milligram of product per unit time)
5	0.5
10	1.0
14	1.4
23	2.5
30	3.4
35	3.9
37	4.0
40	3.8
45	3.0
50	2.0
55	1.0
59	0.3
60	0.2

- (i) On the graph paper provided, draw a graph of the above data. **(5 marks)**
- (ii) State the optimum temperature for the action of this enzyme and explain what would happen to the enzyme at temperatures above the optimum. **(3 marks)**
- (c) Describe how you would test for the presence of:
(i) Fats
(ii) Protein in a food sample. **(3, 3 marks)**
(Total = 20 marks)

4. (a) State **FIVE** transport functions of blood. (5 marks)
- (b) Describe the mechanism of blood clotting. (7 marks)
- (c) State **FOUR** differences between:
(i) Arteries and veins
(ii) Blood and lymph. (4, 4 marks)
- (Total = 20 marks)

-
5. (a) Define the following terms:
(i) Fertilization
(ii) Copulation
(iii) Menstruation. (2, 2, 2 marks)
- (b) Draw a large and neatly labelled diagram of the female reproductive system. (6 marks)
- (c) The gene for colour- blindness is sex linked. A man with normal vision marries a woman who is a carrier. Using genetic diagrams and symbols, determine the genotypes and phenotypes of the offspring. (8 marks)
- (Total = 20 marks)

SECTION B
Answer TWO questions from this Section

6. (a) State the reasons why humans wear clothes. (4 marks)
- (b) In what ways and why should clothes be catered for? (8 marks)
- (c) Describe how the following parts of the body are cared for:
(i) Mouth and teeth
(ii) The male genital. (4, 4 marks)
- (Total = 20 marks)

-
7. (a) State the harmful effects of the following components of cigarette smoke.
(i) Nicotine
(ii) Carbon monoxide (4, 2 marks)
- (b) State the importance of water in the human body. (6 marks)
- (c) Describe the processes involved in the purification of water on a large scale. (8 marks)
- (Total = 20 marks)

-
8. (a) What is first aid? (2 marks)
- (b) Explain the first aid to be administered to a victim bitten by a snake on the limb. (4 marks)
- (c) (i) Describe the life cycle of the malaria parasite (plasmodium). (8 marks)
(ii) How can the spread of malaria be prevented? (6 marks)
- (Total = 20 marks)

-
9. (a) Define the following terms used in ecology:
(i) Ecosystem
(ii) Food web. (2, 2 marks)
- (b) Describe the flow of energy in an ecosystem. (6 marks)
- (c) State the effects of the following to the environment:
(i) Deforestation
(ii) Bush fires. (6, 4 marks)
- (Total = 20 marks)