

GENERAL CERTIFICATE OF EDUCATION BOARD

General Certificate of Education Examination

0565 Human Biology 2

JUNE 2022

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**

1. (a) Define the following terms: (2,2,2 marks)
 (i) Digestion (ii) Peristalsis (iii) Absorption. (10 marks)
 (b) Describe the digestion of proteins in the alimentary canal of humans. (4 marks)
 (c) Outline the adaptations of the ileum to the absorption of digested food. (4 marks)
(Total 20 marks)
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2. (a) Draw a large and neatly labelled diagram of an animal cell as seen under the electron microscope. (7 marks)
 (b) State the functions of the following parts of the cell: (2,2,2 marks)
 (i) Mitochondrion (ii) Cell membrane (iii) Nucleus. (7 marks)
 (c) In tabular form state the differences between mitosis and meiosis. (Total 20 marks)
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3. (a) Draw a large and neatly labelled diagram of the longitudinal section of the human eye. (8 marks)
 (b) How does the eye focus on: (4,4 marks)
 (i) Far objects (ii) Near objects?
 (c) State four causes of deafness in humans. (4 marks)
(Total 20 marks)
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4. (a) Define the following genetic terms: (2, 2, 2 marks)
 (i) Allele (ii) Homozygous (iii) Codominance.
 (b) What are the possible phenotypes of the offspring of a mother who is heterozygous for blood group B and the father who is of blood group AB? (7 marks)
 (c) Why is breastfeeding important to humans? (7 marks)
(Total 20 marks)
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5. (a) Draw a large and neatly labelled diagram of the kidney nephron. (7 marks)
 (b) Describe the formation of urine in humans. (7 marks)
 (c) State the roles of the liver in homeostasis. (6 marks)
(Total 20 marks)
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SECTION B**Answer TWO questions from this Section**

6. (a) What is pollution? (3 marks)
 (b) State two effects each of the following pollutants:
 (i) Carbon monoxide (ii) Chlorofluorocarbons (iii) Sulphur dioxide (iv) Smoke (2,2,2,2 marks)
 (v) Nitrogen dioxide. (7 marks)
 (c) Describe the carbon cycle. (Total 20 marks)
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7. (a) How does the excessive consumption of alcohol affects the society? (6 marks)
 (b) How can excessive consumption of alcohol be combated? (6 marks)
 (c) How can the following parts of the body be taken care of?
 (i) hands (ii) the eye (iii) the ear. (3,3,2marks)
 (Total 20 marks)
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8. (a) State the reasons why sewage must be treated before disposal. (5 marks)
 (b) Describe the different methods of treatment of garbage. (7 marks)
 (c) State and explain the processes involved in the purification of water at home (on a small scale) . (8 marks)
 (Total 20 marks)
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9. (a) State the causative agent, a mode of transmission, two signs or two symptoms and two preventive measures of the following diseases:
 (i) Gonorrhoea (ii) Poliomyelitis (iii) Typhoid fever. (6,6,6 marks)
 (b) How do pathogens cause diseases? (2 marks)
 (Total 20 marks)

GO BACK AND CHECK YOUR WORK