



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF HEALTH SCIENCES
UNIVERSITY EXAMINATION FOR DEGREE OF BACHELOR OF SCIENCE
PUBLIC & COMMUNITY HEALTH AND DEVELOPMENT
1ST YEAR 2ND SEMESTER 2023/2024 ACADEMIC YEAR
MAIN/ KISUMU CAMPUS

COURSE CODE: HCB 1102

COURSE TITLE: MEDICAL PHYSIOLOGY

EXAM VENUE: STREAM: (BSc Env. Hlth & Com Health and Dev)

DATE: EXAM SESSION:

TIME: 2.00 HOURS

Instructions:

- 1. Answer all the questions in Section A each contain 3 marks and ANY other two questions in Section B, each contain 20 marks.**
- 2. Candidates are advised not to write on the question paper.**
- 3. Candidates must hand in their answer booklets to the invigilator while in the examination room.**

SECTION A 30 MARKS

Answer ALL questions

1. Define the following terms
 - a.) Cardiac output (1 marks)
 - b.) Blood volume (1marks)
 - c.) Synapse (1 marks)
2. a.) Draw the structure of a neuron and label all the parts (2 marks)
3. Describe the divisions of the autonomic nervous system and the organs they supply (6 marks)
4. What is the function of a neuron? (2 marks)
5. Name and give a function of hormones of the pituitary gland (4 marks)
6. What is metabolism (3 marks)
7. Draw the structure of the respiratory system and label all the parts (4 marks)
8. Describe the origin and distribution of the action potential in the heart (4 marks)
9. Mention factors which determine cardiac output. (2 marks)

Section B

ANSWER ANY TWO QUESTIONS FROM THIS SECTION (40 MARKS)

1.
 - a.) Draw the structure of the nephron and label all the parts (10 marks)
 - b.) Describe in details the process of ultrafiltration leading to formation of urine (10 marks)
2.
 - a.) Describe organs which form the accessory parts of digestion system (8 marks)
 - b.) Discuss the endocrine function of the pancreas (12 marks)
3. Discuss FIVE functions of the liver (20 marks)
4. Describe in details the process of gas exchange in a human body system (20 marks)
5. Describe in details the process of digestion of proteins in humans from the mouth to the intestines (20 marks)