



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY**

**SCHOOL OF HEALTH SCIENCES**

**UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE**

**PUBLIC HEALTH/COMMUNITY HEALTH AND DEVELOPMENT**

**2<sup>nd</sup> YEAR 1<sup>ST</sup> SEMESTER 2017/2018 ACADEMIC YEAR**

**MAIN CAMPUS**

---

**COURSE CODE:** HCD 3124

**COURSE TITLE:** BASIC BIOCHEMISTRY

**EXAM VENUE:** STREAM: BSc Public/ Comm. Hlth & Dev

**DATE:** **EXAM SESSION:**

**TIME: 2.00 HOURS**

---

**Instructions:**

- 1. Answer all the questions in Section A and 2 questions in Section B.**
- 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 (30MKS)**

1. Define the following terms as used in Biochemistry;
  - a. Aldotetrose (1mk)
  - b. Reducing sugar (1mk)
  - c. Chiral center (1mk)
2. Briefly, outline how monosaccharides are named (3 mks)
3. Describe the differences between disaccharides and oligosaccharides (3 mks)
4. Mention the structural role played by chitin in insects (3 mks)
5. Write short notes on the structural features of amino acids (3 mks)
6. Mention examples of non-standard amino acids (3 mks)
7. List the major classes of lipids (3 mks)
8. With specific examples, give the structural outline of steroids (3 mks)
9. Compare and contrast between purines and pyrimidines (3 mks)
10. Outline the major functions of sodium in the body (3 mks)

## **SECTION B (40MKS)**

11. Discuss the disorders associated with low levels of minerals in the diet (20mks)
12. Discuss the biological functions of vitamins (20mks)
13. Discuss the basic characteristics of nucleic acids (20 mks)
14. Discuss the functions of conjugated proteins (20mks)