



**AMREF INTERNATIONAL UNIVERSITY
UNIVERSITY EXAMINATIONS 2025
SCHOOL OF PUBLIC HEALTH
DEPARTMENT OF COMMUNITY HEALTH
BSC COMMUNITY HEALTH
END OF SEMESTER EXAMINATION, AUGUST-DECEMBER 2025
MAIN EXAMINATION**

CHP 125: Biochemistry

DATE :

TIME : Two (2) Hours

Start: Stop:

Instructions

- 1) This paper has Section A and B
- 2) Answer **ALL** questions in Section A
- 3) For Section B, answer any two (2) questions of your choice
- 4) Use the university examination booklets provided
- 5) Write your student registration number on all your answer sheets

Read carefully the additional instructions preceding each section

SECTION A: SHORT ANSWER QUESTIONS. ANSWER ALL QUESTIONS

(30 Marks)

1. Outline function of any five cellular components. (5 Marks)
2. Highlight five biological functions of fatty acids. (5 Marks)
3. Highlight any four structural uniqueness of nucleotides. (4 Marks)
4. Distinguish between sucrose and lactose from the structural standpoint. (4 Marks)
5. Outline any three functions of vitamin D. (3 Marks)
6. Using examples, outline the linkages of monomers for any five biomolecules found in the cell. (5 Marks)
7. Outline why excessive intake of fat-soluble vitamins can be harmful. (4 Marks)

SECTION B: LONG ANSWER QUESTIONS. ANSWER ANY TWO QUESTIONS

(40 Marks)

8. Explain the following terms
 - a.
 - i. An enzyme activator (3 Marks)
 - ii. An enzyme inhibitor (3 Marks)
 - iii. Allosteric effector (4 Marks)
 - b. With appropriate examples explain the differences between the primary, secondary, tertiary and quaternary structures of proteins (10 Marks)
9. Describe any five major functions of hormones in the body. Use an example in each case (20 Marks).
10. Discuss;
 - a. the classification of carbohydrates (10 Marks)
 - b. biological significance of carbohydrates. (10 Marks)