



KISII UNIVERSITY
UNIVERSITY EXAMINATIONS
FIRST YEAR EXAMINATION FOR THE AWARD OF THE
CERTIFICATE ANIMAL HEALTH/ANIMAL SCIENCE
SECOND SEMESTER 2022/2023
(SEPTEMBER - DECEMBER, 2022)

BIOC 00113: BIOCHEMISTRY

STREAM: Y1 S2

TIME: 2 HOURS

DAY: MONODAY, 3:00 P.M – 5:00P.M

DATE: 19/12/2022

INSTRUCTIONS:

1. *Do not write anything on this question paper.*
2. *Answer ALL Questions in section A (Compulsory) and any other THREE Questions in section B.*

SECTION A [COMPULSORY] [40 MARKS]

QUESTION ONE

- (a) Give three classes of carbohydrates, in each give two examples. [4marks]
- (b) List any two examples of functional disaccharides. [2marks]
- (c) What are lipids ? give four examples. [3marks]

QUESTION TWO

Explain the following terms;

- (a) Phospholipids [2marks]
- (b) Triglyceride [2marks]
- (c) Waxes [2marks]
- (d) Amino acids [2marks]
- (e) Nucleic acids [2marks]
- (f) Give four examples of amino acids. [2marks]

QUESTION THREE

- (a) What is RNA? [1mark]
- (b) List three different types of RNA and their functions. [3marks]
- (c) What are enzymes? [1mark]
- (d) Explain what you understand by biotechnology and its uses. [3marks]
- (e) Give four examples of milk products you know. [2marks]

QUESTION FOUR

- (b) Explain the classification of enzymes. [5marks]
- Give the practical uses of enzymes. [5marks]

SECTION B [30 MARKS]

QUESTION FIVE

- (a) Explain the two functional classes of disaccharides. [4marks]
- (b) Briefly explain three structural polysaccharides. [6marks]

QUESTION SIX

- (a) Differentiate between asexual and sexual reproduction, in each give one example. [5marks]
- (b) Explain two methods of asexual reproduction. [5marks]

QUESTION SEVEN

- (a) What is glycolysis? [2marks]
- (b) Highlight the steps in glycolysis. [5marks]
- (c) List six essential amino acids. [3marks]

QUESTION EIGHT

- Describe Mendel's law with an illustration. [10marks]