



KISII UNIVERSITY
UNIVERSITY EXAMINATIONS

THIRD YEAR EXAMINATION FOR THE AWARD OF THE DEGREE OF
BACHELOR OF SCIENCE BIOCHEMISTRY
SECOND SEMESTER 2021/2022
(FEBRUARY-JUNE, 2022)

BIOC 322: INTRODUCTION TO BIOINFORMATICS

STREAM: Y3 S2

TIME: 2 HOURS

DAY: TUESDAY, 3:00 PM – 5:00 PM

DATE: 24/05/2022

INSTRUCTIONS:

- 1. Do not write anything on this question paper.***
- 2. Answer ALL questions in section A and any TWO in section B.***

SECTION A (40MARKS)

1. Explain any one sequencing method in detail. (5 marks)
2. Discuss the broad coverage of Bioinformatics in detail. (5 marks)
3. Discuss text mining and biological natural language processing.(5 marks)
4. Explain Gene testing (5 marks)
5. Describe Genome analysis (5 marks)
6. Discuss molecular Biology Databases. (5 marks)

7. Discuss DNA methods in disease diagnosis. (5 marks)
8. Discuss DNA chip technology and micro-arrays. (5 marks)

SECTION B (30 MARKS)

9. Discuss the following; (15 marks)
- i. Human genome project and its scope
 - ii. DNA methods in disease diagnosis
 - iii. Pharmaceutical DNA products
10. Discuss sequence search and alignment. (15 marks)
11. Discuss the various application of Biotechnology in health. (15 marks)