



# CRAWFORD UNIVERSITY

FAITH CITY, IGBESA, OGUN STATE

2021/2022 HARMATTAN SEMESTER EXAMINATIONS

COLLEGE: NATURAL AND APPLIED SCIENCES

DEPARTMENT: BIOLOGICAL SCIENCES

PROGRAMME: BIOCHEMISTRY

COURSE CODE: BCH 415

COURSE UNIT: 2

COURSE TITLE: INTRODUCTION TO BIOINFORMATICS.

STATUS: ELECTIVE.

TIME ALLOWED: 2 HOURS

**INSTRUCTION:** ANSWER ANY OTHER FOUR (4) QUESTIONS.

- 1.(a) Define the following: (i) bioinformatics (ii) Biotechnology (iii) computational biology. *(5 marks)*.  
(b) Discuss the relationships between Genomics and Proteomics. *(10 marks)*
- 2.(a) Describe the process of DNA sequencing. Illustrate with appropriate diagrams. *(7marks)*  
(b) Highlight the processes involved in (i) Mapping (ii) Gene banking. *(7 marks)*
- 3.(a) State FIVE objectives and FIVE benefits of the human genome project (HGP). *[10 mark]*  
(b) Explain the legal, ethical, and the social implications of the HGP. *(5 marks)*
- 4 Discuss the benefits of sequencing five organisms known to you. *(15 marks)*
- 5 (a) Describe the data bases for protein information and structures. *(7 marks)*  
(b) State the Databases for mouse genome sequences. *(7 marks)*
6. How would you use genome sequencing to: (i) Access biological Information and (ii) Treat genetic diseases *(7 marks)*