



CRAWFORD UNIVERSITY

FAITH CITY, IGBESA, OGUN STATE

2013/2014 RAIN SEMESTER EXAMINATIONS

COLLEGE: NATURAL AND APPLIED SCIENCES

DEPARTMENT: BIOLOGICAL SCIENCES

PROGRAMME: BIOCHEMISTRY

COURSE CODE: BCH 202

COURSE TITLE: INTRODUCTION TO BIOTECHNOLOGY

UNIT: 3.

TIME: 3 HOUR

INSTRUCTION: ANSWER FIVE QUESTIONS ONLY.

QUESTIONS:

- (a) Define the following:

 - Biotechnology
 - Bioinformatics

(b) Supply the full meaning of the following-

 - RFLP
 - RAPD
 - VNTR
 - cDNA
 - rDNA
- (a) Describe any two of the following techniques; highlighting their principles and importance:

 - Agarose gel electrophoresis
 - PCR
 - UV spectroscopy

(b) Give ten differences between Classical Biotechnology and Modern Biotechnology.
- (a) Explain five objectives of the human genome project.

(b) Discuss five important areas where biotechnology has excelled.
- (a) Mention three non-genetic RNAs, their site of synthesis and functions. What is the major role of genetic RNA in some organisms.

(b) Explain the following- Genetic diversity and Species diversity.
- (a) Outline five biotechnology therapeutic products and their applications.

(b) Describe only ten achievements of biotechnology.
- With the aid of diagrams describe the structure of DNA and Purines.
- Describe the following units of a gene-

 - Cistron
 - Recon
 - Mutan
 - Cis and trans positions of a gene allele.