NATIONAL OPEN UNIVERSITY OF NIGERIA

National Open University Of Nigeria
Plot 91, Cadastral Zone, Nnamdi Azikiwe Expressway, Jabi - Abuja
Faculty of Science

OCTOBER/NOVEMBER 2016 EXAMINATION

COURSE CODE: BIO 316

COURSE TITLE: INTRODUCTION TO BIOINFORMATICS

TIME ALLOWED: 2 Hours

INTRUCTION: Answer Question One (Compulsory) and Three Others

1. a) Define a database.
   b) What do you understand by Database collaboration
   c) Differentiate between a primary and a secondary database
   d) List out the types of databases based on nature of primary

2. Describe the characteristics of file formats of the primary databases

3. Define or give meaning to the following bioinformatics terms: -
   i) Accession Number
   ii) BLAST
   iii) BLOSUM
   iv) CLUSTALW.

4. What is NCBI? Describe the major features of NCBI

5. List the BLAST flavours and describe their outputs

6. a)   What is sequence alignment?
   b)   list the types of methods of a nucleotide alignments
   c)   attempt to align these sets of sequences
      i)   ATTGCC, AATTCGCC
      ii)   MLTKF, MMMKFFT