



NATIONAL OPEN UNIVERSITY OF NIGERIA
PLOT 91, CADASTRAL ZONE, NNAMDI AZIKIWE EXPRESSWAY, JABI - ABUJA
FACULTY OF SCIENCE
2022_2 EXAMINATION

BIO 316 – BIOINFOMATICS

Time: 1½ Hours

Credit Unit: 1

Instruction: Answer 4 questions only. QUESTION 1 is compulsory.

- 1a Define Bioinformatics (2mrks)
1b Mention the aim of Bioinformatic (3 mrks)
1c Describe the role of the following scientist in the historical development of Bioinformatics (12 mrks)
i. Zuckerkandl and Pauling
ii. Margaret O. Dayhoff
iii. Dayhoff and Coworkers
iv. Victor McKusick
1d Who established NCBI? (1mrk)
1e Write the full meaning of NCBI and identify its major features (7mrk)
- 2a List and explain the two (2) categories of Database analysis (7mrk)
2b Give two (2) examples of Primary and Secondary databases (2 mrk)
2c Mention two (2) database for reporting error and their websites. (6 mrks)
- 3a Define Accession Number (3 mrks)
3b Explain the following three (3) data base retrieval tools (12 mrks)
i. CLEVER
ii. LOOKUP
iii. FETCH
- 4a Describe the functions of *ENTREZ* and mention its information space (13mrks)
4b Enumerate the two ways by which *ENTREZ* is able to offer integrated information retrieval (2mrks)
- 5 Given the following databases/interface;NCBI's GenBank, EMBL, DDBJ, SWISS-PROT, OMIM. Correctly write their search sites and type of information they provide in a tabular form. (15mrks)