Dr. Tirath Raj Singh

JAYPEE UNIVERSITY OF INFORMATRION TECHNOLOGY, WAKNAGHAT
TEST -1 EXAMINATION- February 2020
B.Tech VI Semester

COURSE CODE: 10B11BI614 MAX. MARKS: 15
COURSE NAME: Adv. Algorithms for Bioinformatics
COURSE CREDITS: 04 MAX. TIME: 1 Hrs

Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means.

Q.1. Define and compare Hamming and Edit distances for a specific pair of DNA sequence. (CO - 1, 2) [2]

Q.2. Define semi-global alignment with an example. (CO - 2) [2]

Q.3.What are the basic characteristics of an algorithm? How we measure the performance of an algorithm? (CO - 1-3) [3]

Q.4. Solve the given set of DNA fragments through Hamiltonian followed by Euler's approaches:

[ATG, GCC, CTA, GAT, TGC, CCT] (CO - 1, 2) [5]

Q.5. Discuss Benzer's experiment towards the implementation of interval graph. Also explain how the linearity of the genome was proved? (CO - 1) [3]

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