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University of Pennsylvania
BIOL4536 Fall 2023
Professor: Gregory R. Grant
QUIZ#4
(BLAST/DNA-Seq)

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Question 1. (2 pts.) True or False. BLAST performs Smith-Waterman local alignments between the query and all sequences in the database.

ANSWER: False.

Question 2. (2 pts.) Suppose the scoring scheme for a BLAST DNA search is +1 for match and −1 for mismatch or indel. True or False, a significant alignment can have entirely mismatches.

ANSWER: False.

Question 3. (2 pts.) fastQ files have how many rows per read-pair?
   (A) Two
   (B) Four
   (C) Six
   (D) Eight ⟵ **THIS ONE**

Question 4. (2 pts.) True or False. SNP calling is primairly done with microarrays.

ANSWER: True.

Question 5. (2 pts.) What does blastx do?

ANSWER: It translates the query sequence into protein in all six ways and aligns each to a protein database.