

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT
Test-1, Examination- September 2015
B.Tech.- V Semester

COURSE NAME: Computational Genomics
COURSE CODE: 15B11BI512
COURSE CREDIT: 04

MAX MARKS:15
MAX TIME:1 hr

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

Q.1. Align following sequences using FASTA algorithm:

LGFIKYLPCM and TGFILKYPAT. (2)

Q.2. Define the aim of computational genomics with its various applications. (2)

Q.3. Describe internal working of BLAST with an example. (2)

Q.4. Define genomic era with important time lines. (2)

Q.5. Solve the PDP for given X = 0, 3, 4, 5, 6, 9, 15. (2)

Q.6. Explain following: (0.5*10=5)

- (i) Annotation and its significance (ii) Draw the sequence similarity chart (iii) Scoring system
(iv) Significance of PAM and BLOSUM (v) PSI Blast (vi) Offset vector
(vii) HSPs (viii) Personalized genomics (ix) PHI Blast (x) E-value