Average: 46/5 = 9.2 : Aug. base stacking energy = 9.2 2) Sequence: LEADSEQ => L=125 E=145 A=85 D=130 S =100 E=145 Q=140 Mol. wt = 2 mw.of AA - (n-1) mw of H20 = 125+145 +85+130+100+145+140 - 18x6 = 870-108 = 762 Daltons 3) Sequence identity: MLITLAIWKU = 3 x100 = 30% Sequence Similarity: MLITLAIWKU = 5 x100 = 80°/0 MLASIDTERA

137 3040- 1510 mormaci cs End Semester Exam

THE PARTY IN THE

1) Sequence: TAGAGIC

Parts: TA, AG, GA, AG, GC

Score: -7, -9, -9, -9, -12

O. Saidhar

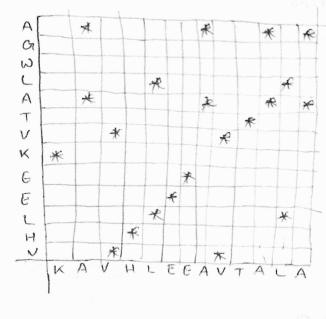
Sum: 46

BE19B029

PART-11

ha by filly

4)



from this dotplot, we can say that the sequences are aligned like the following:

NHLEEKVTALWGA

-Highest continuous line = 5 AA starting from first 'V' in 2nd sequence.

## Post-111

2) Sequences: 1: GTGCTG(ACG

2: A GI CTGI CAA GI C

3: GT Cn CT GC A C T

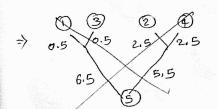
4: CT C TUCAGAA

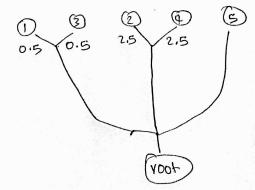
5: GAATCACATA

## 2b) Weight matrix:

| 1 | 1               | 2 | 3 | 4    | 5      |
|---|-----------------|---|---|------|--------|
| 5 | 9               |   |   | T Ag | S-12-3 |
| 3 | 1               | 9 |   | 19.  |        |
| 4 | 9               | 5 | 9 |      |        |
| 5 | 7               | 8 | 7 | 8    | 一八萬    |
|   | gar in any fire |   |   |      | 176    |

## 2a) Scaled tree:





(5)

A STATE OF THE STATE OF

2d) 1. GTGCTGCACG M = 2 V. GAATCACATA Mm = -1GP = -3

| 10 GT T GTC TGTC A C GT |            |   |   |     |    |   |   |   |   |   |   |         |   |  |
|-------------------------|------------|---|---|-----|----|---|---|---|---|---|---|---------|---|--|
| 0                       | Ó          |   | 0 | 0   | 0  | 0 | 0 | - | - | C | 0 | 5       | - |  |
| G                       | $\bigcirc$ |   | 2 | 0   | 2  | 0 | 0 | 2 | 0 | 0 | 0 | 2       |   |  |
| A                       | C          |   | 0 | 01  | 0  | 1 | 0 | 0 | 1 | 2 | 0 | 0       |   |  |
| A                       | 0          | 1 | 0 | 0   | 0  | 0 | 0 | 0 | 0 | 3 | 1 | 0       |   | Pols.  |
| <del>-</del>            | C          | ) | O | 20  | 0  | 0 | 2 | 0 | 0 | 0 | 2 | $\circ$ |   |  |
| C                       | C          | ) | 0 | 0   | 1  | 2 | 0 | 1 | 2 | 0 | 2 | .       |   | 100  |
| A                       | (          | 9 | 0 | 0   | 0  | O | 1 | 0 | O | 4 | 1 | J       |   | Maria de Cara d <b>a Par</b>   |
| C                       | 0          | C | O | 0   | O  | 2 | O | 0 | 2 | 1 | 6 | 3       |   | in a gradient de la company  |
| A                       |            | 0 | 0 | 0   | O  | 0 | 1 | 0 | 6 | 4 | 3 | 5       |   |  |
| 7                       | -          | 0 | 0 | ) 7 | 20 | O | 2 | O | 0 | 1 | 3 | 2       |   | gradient and the stand   |
| 1-                      | 1          | O | C | C   | 1  | 0 | 0 | 1 | 0 | 2 | O | 2       |   | Sherman and a second   |
|                         |            |   |   | ,   | 1  | 1 |   |   | 1 | 1 | 1 | 1       | - | and the same of th |

DEHKREI FILVW=5 3a) If AA Hg > 3 : 1 Aug = 3 Seq: A 15 TATTATA IKSWVKTIARN LLN SALAS DASE 110010010110011001100110011000110 DASE ARIKLNAIL KILKIN 0 100 1010 10111 011010 Profile: AISTATTATAIKS WUKTIARN LLN SALASDAS E DASE AR IKLNAILKICKI

& Helix: A10 - L27
B strand: None.

36) ii) Contact order:

$$= (20.02 - 15.94) + (26.30 - 20.02)^{2}$$

歩んことを確うです

$$= 6/20 = 0.3$$

i) Swrounding hydrophobicity.

46) 100 - 15 = 63 20 - 65

9 - Match.

