UAS Diskrit 2019

1.

a. Graf tersebut tidak homeomorfik terhadap K_{33}, karena kedua graf tidak memiliki simpul berderajat 2 untuk disisipkan atau membuang simpul

b. Graf tersebut planar karena, upagraf dari graf tersebut tidak menghasilkan graf K_{33} ataupun graf K_5, dan juga dapat dibuktikan dengan:

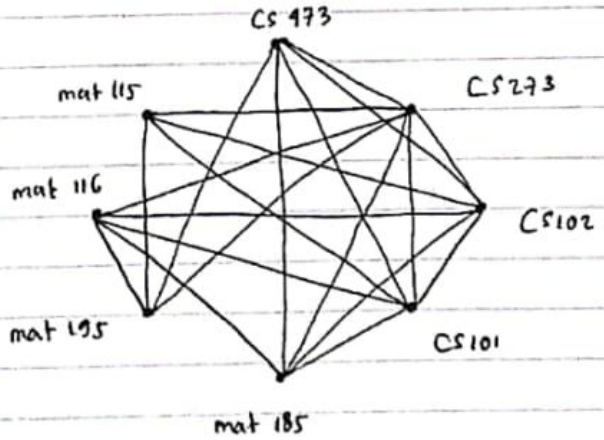
$e = 11$ $\quad e \leq 3n - 6$

$n = 6$ $\quad 11 \leq 3(6) - 6$

$11 \leq 12$ (terbukti planar)

2. a

b



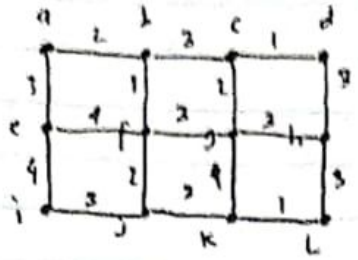
Simpul : Mat 115, Mat 116, Mat 195, Mat 185, CS101, CS102, CS 273, CS 473

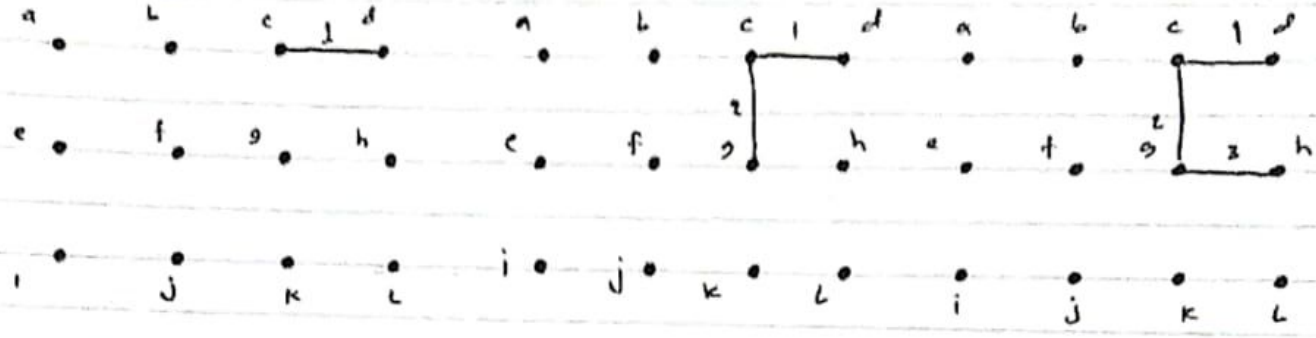
derajat : 4, 5, 4, 5, 6, 6, 7, 5

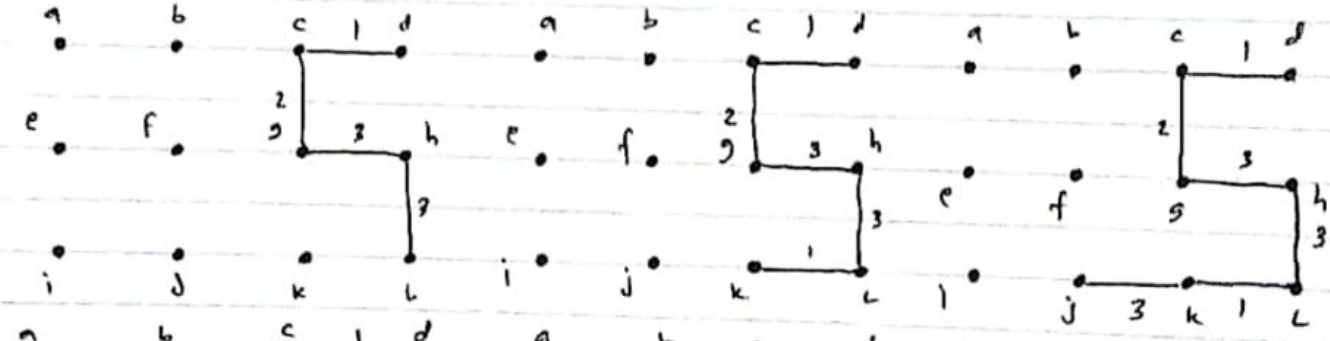
warna : Biru, Biru, Hijau, Jingga, Kuning, Hijau, merah, Biru

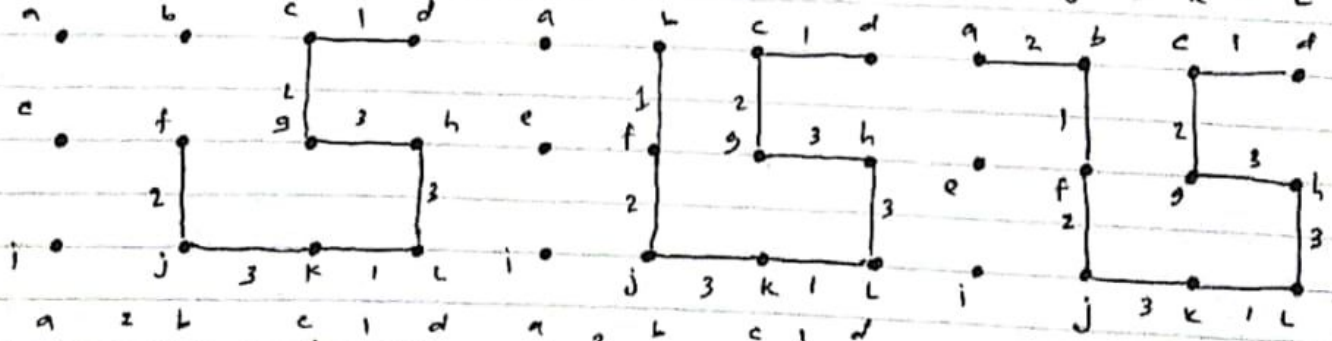
Jadi $\chi(H) = 5$

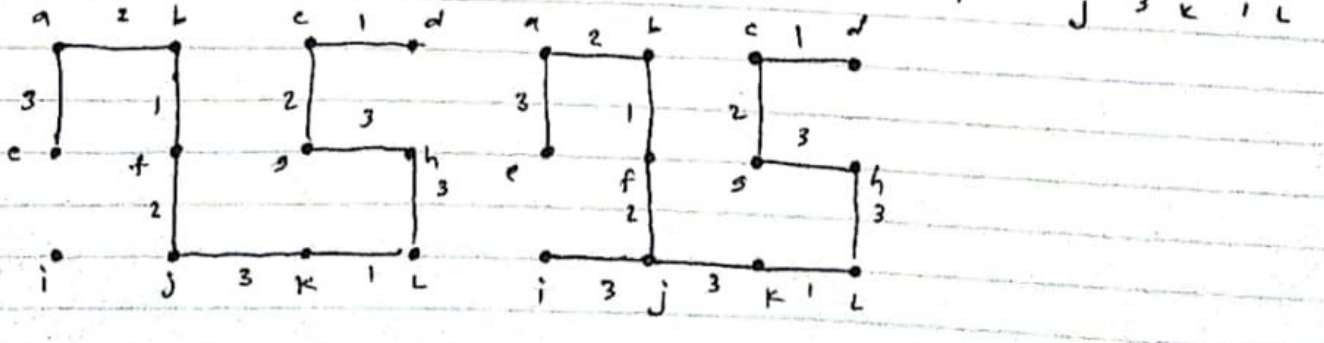
(3)









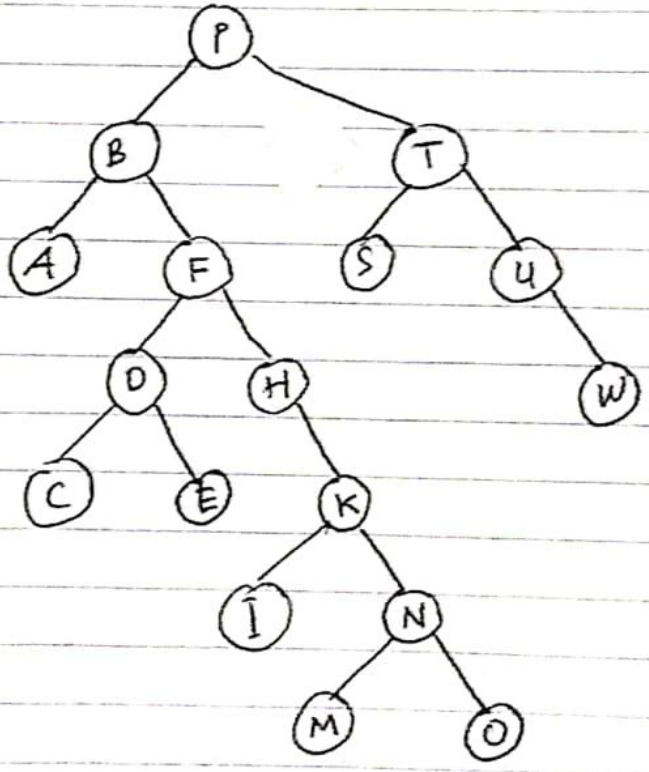


Minimum spanning tree = 1 + 2 + 3 + 3 + 1 + 3 + 2 + 1 + 2 + 3 + 3

= 24

(4) P, T, B, F, H, K, N, S, A, U, M, I, D, C, W, O, E

a.



b. Preorder : P, B, A, F, D, C, E, H, K, I, N, M, O, T, S, U, W
InOrder : A, B, C, D, E, F, H, I, K, M, N, O, P, S, T, U, W
PostOrder : A, C, E, D, I, M, O, N, K, H, F, B, S, W, U, T, P