

CSE 220 FALL-21

FINAL EXAM.

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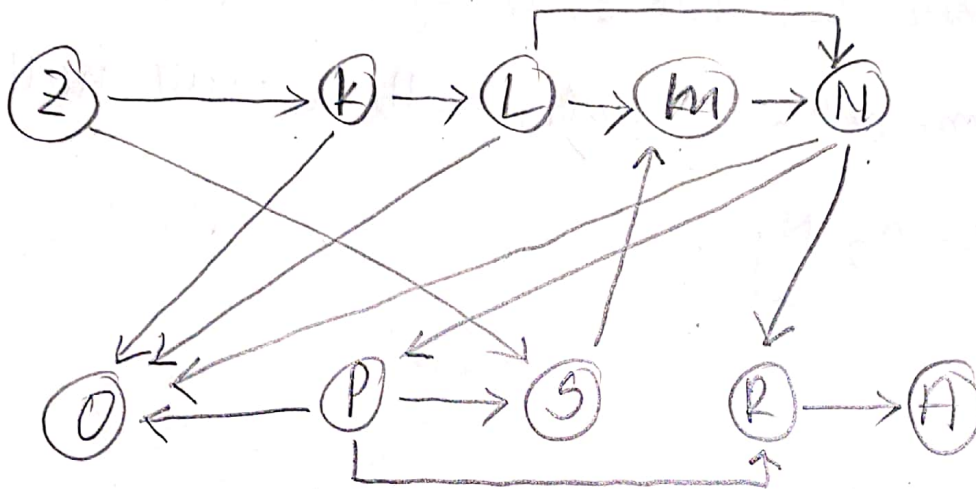
Section: 09.

Date: 07.01.22.



3(a)

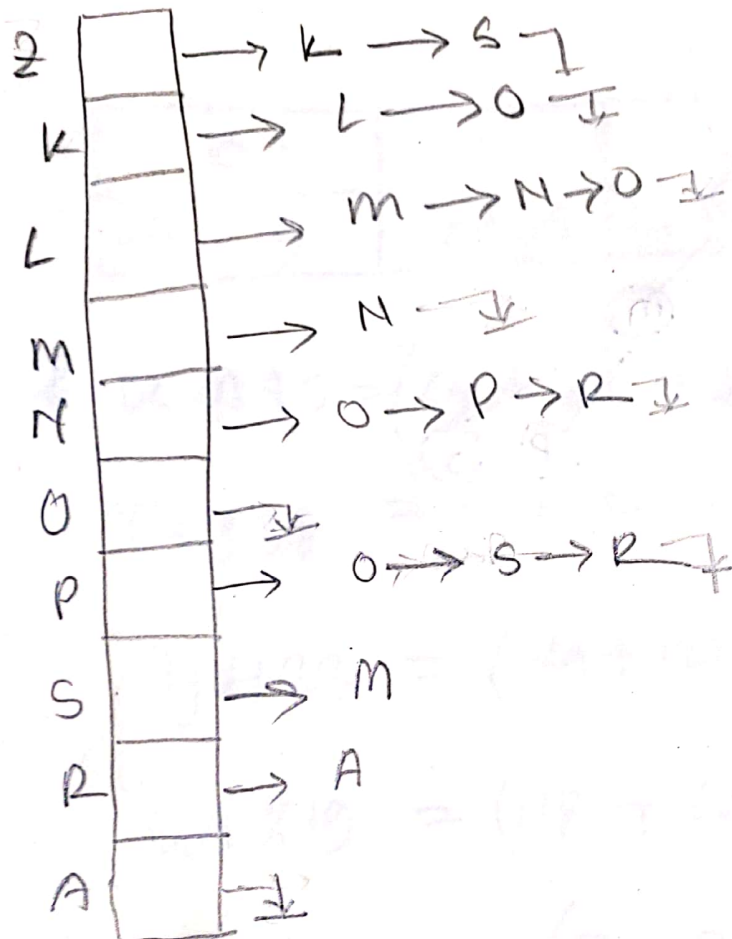
(ii) Equivalent graph:



(iii)

<u>Node</u>	<u>Indegrees</u>	<u>Outdegrees</u>
Z	0	2
K	1	2
L	1	3
M	2	1
N	2	3
O	4	1
P	1	2
S	1	1
R	2	1
A	1	0

(i) Equivalent list :

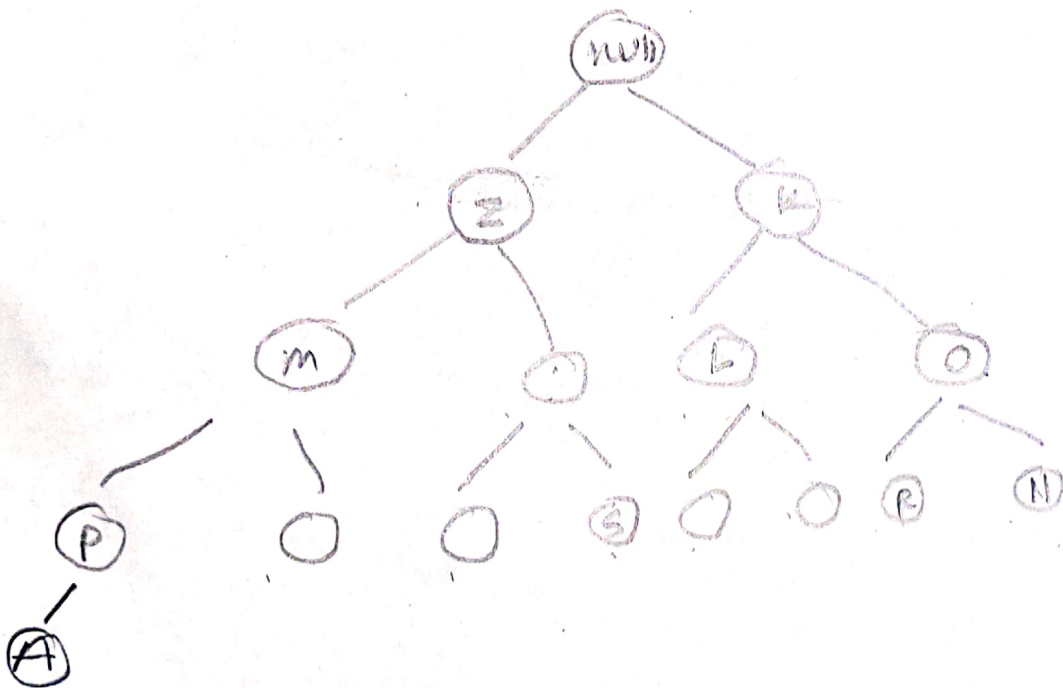


Answer to the question no. 01.3

(b)

Given, [null, z, k, m, null, L, O, P, null, null, S, null, null,  
R, N, A]

(i) Binary trees:



(ii) pre order sequence: root-left-right

[null, z, m, p, A, null, null, null, s, k, L, null, null,  
O, R, N]

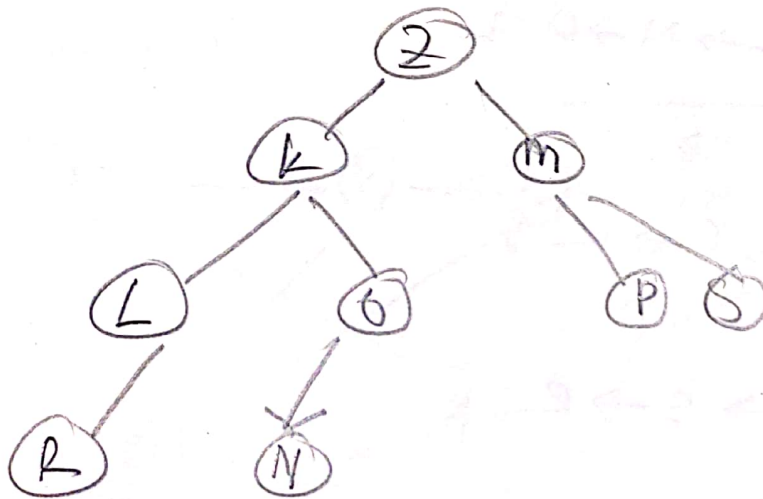
in order sequence: left-root-right

[A, p, m, null, z, null, null, s, null, null, L, null,  
k, R, O, N]

3(b)

(iii)

binary tree:



Answer no. 2

(a)

0	1	2	3	4
UA % 10	De 858	L2 872	De @ 45	Jy # 23

$$De @ 45 = (68 + 101 + 64) - 20 = 213 \% 5$$

$$De 858 = (67 + 101 + 38) - 40 = 166 \% 5$$

$$Jy \# 23 = (74 + 121 + 35) - 6 = 224 \% 5$$

$$UA \% 10 = (117 + 65 + 37) - 9 = 210 \% 5$$

$$L2 872 = (76 + 38 + 113) - 14 = 213 \% 5$$