

CSE220 FALL-21

FINAL EXAM.

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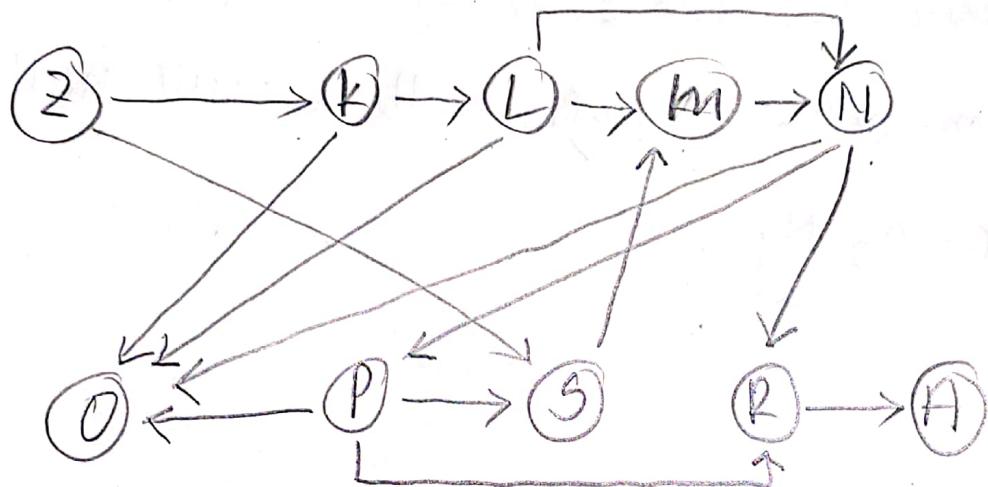
Roll No: 20301133 [Section: 09]

Section: 09.

Date: 07.01.22.

3(a)

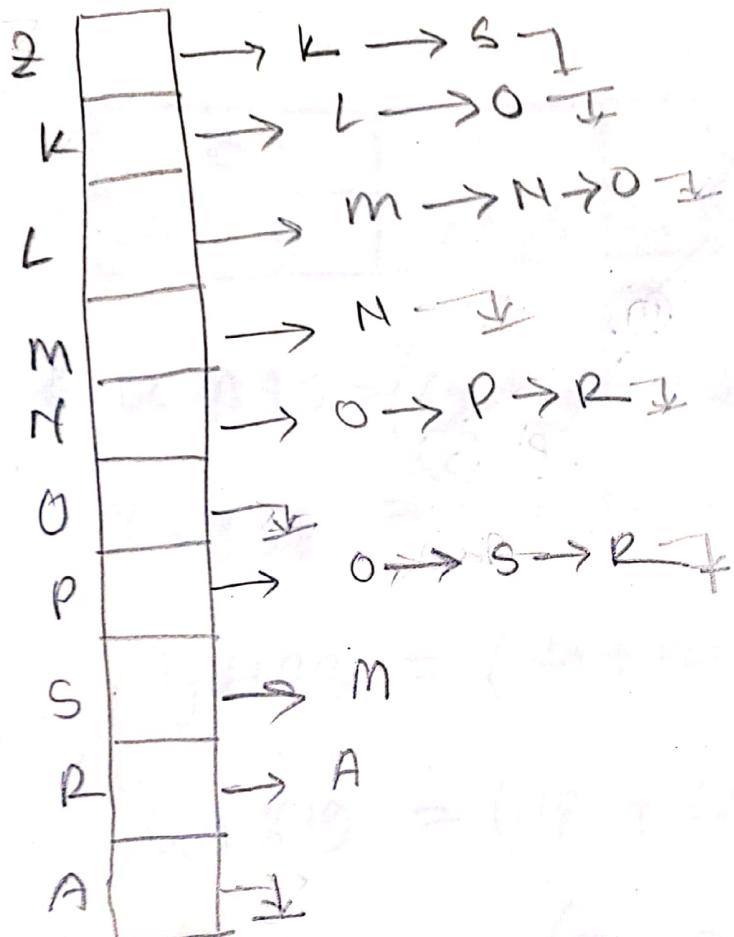
(i) Equivalent graph:



(ii)

<u>Node</u>	<u>In degrees</u>	<u>Out degrees</u>
Z	0	2
K	1	2
L	1	3
M	2	1
N	2	3
O	4	1
O, P, Q, R	1, 2, 1, 2	3, 3, 3, 3

(i) Equivalent list:

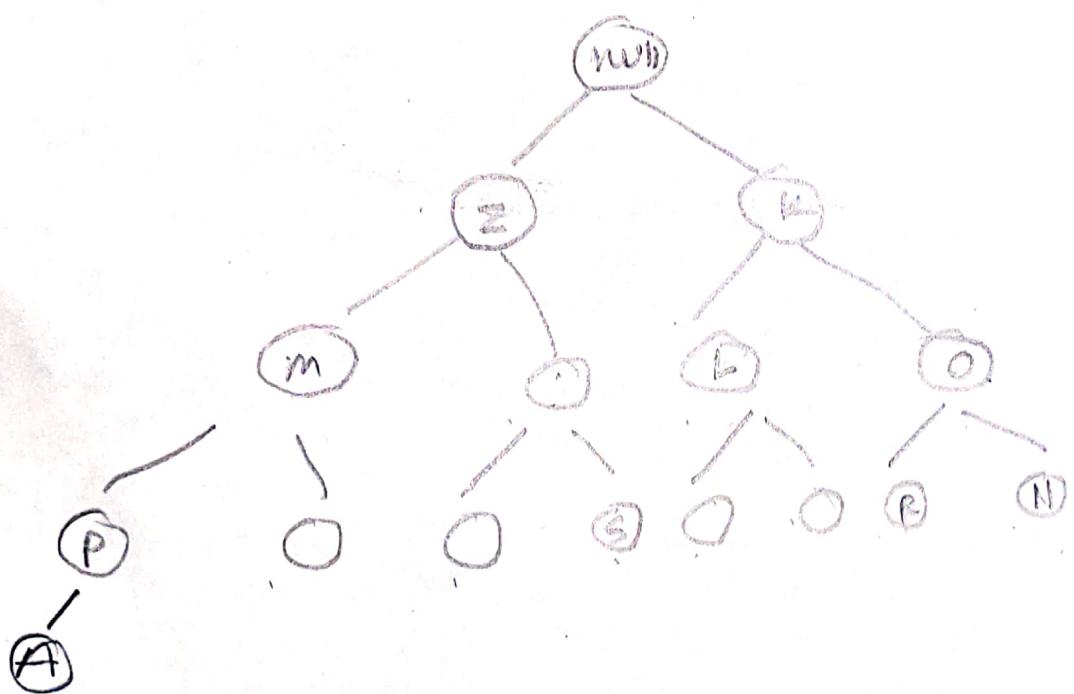


Answer to the question no. 0 B.3

(b)

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

(i) Binary trees:



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

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

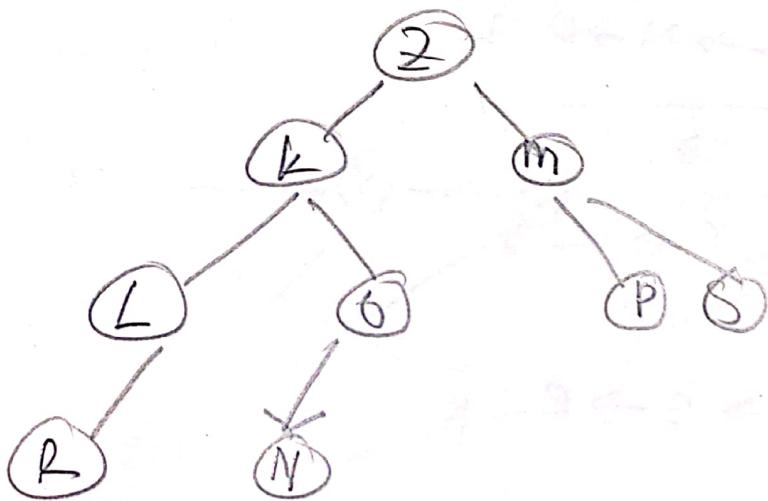
in orden sequence: left-root-right

[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%	Cef 58	L2 87.2	Dc@45	Jy #23.

$$Dc @ 45 = \left(69 + \cancel{61} + \cancel{52} / \cancel{53} \right) - 20 = 213 \% .5$$

$$Cef 58 = \left(67 + 101 + 38 + \cancel{4} \right) - 40 = \frac{166 \% .5}{= 101} = 101 \% .2$$

$$Jy #23 = (74 + 121 + 35) - 6 = \frac{212 \% .5}{= 4}$$

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

$$= 10\%$$

$$L2 87.2 = (76 + 38 + 113) - 14 = 213 \% .5$$

$$= 10.6$$