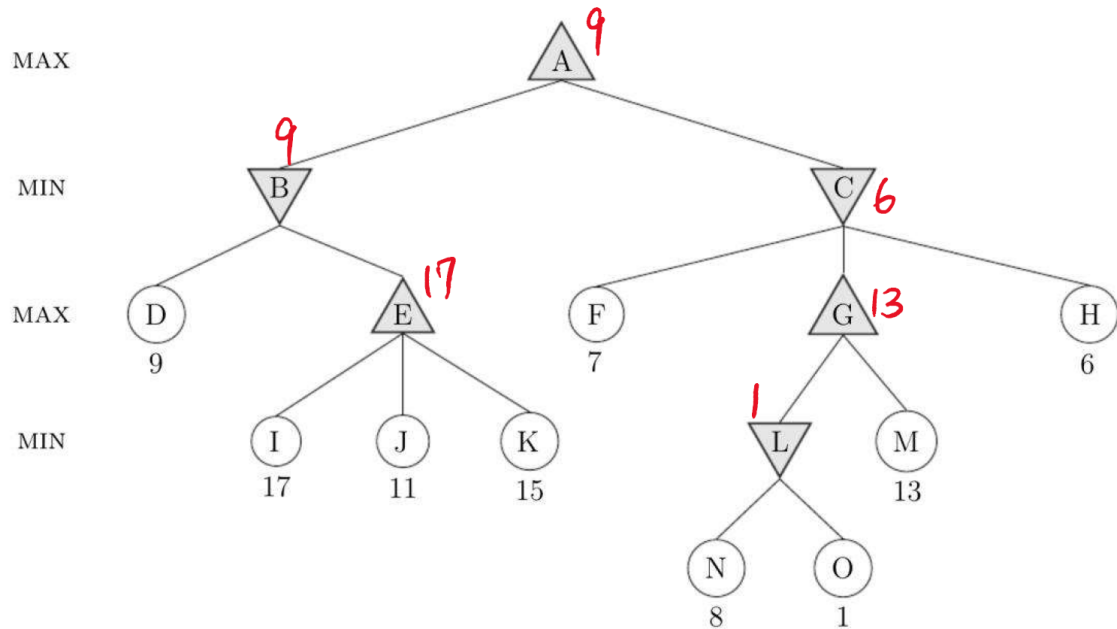# FAI 2024 HW2 Solution / Grading Criterion
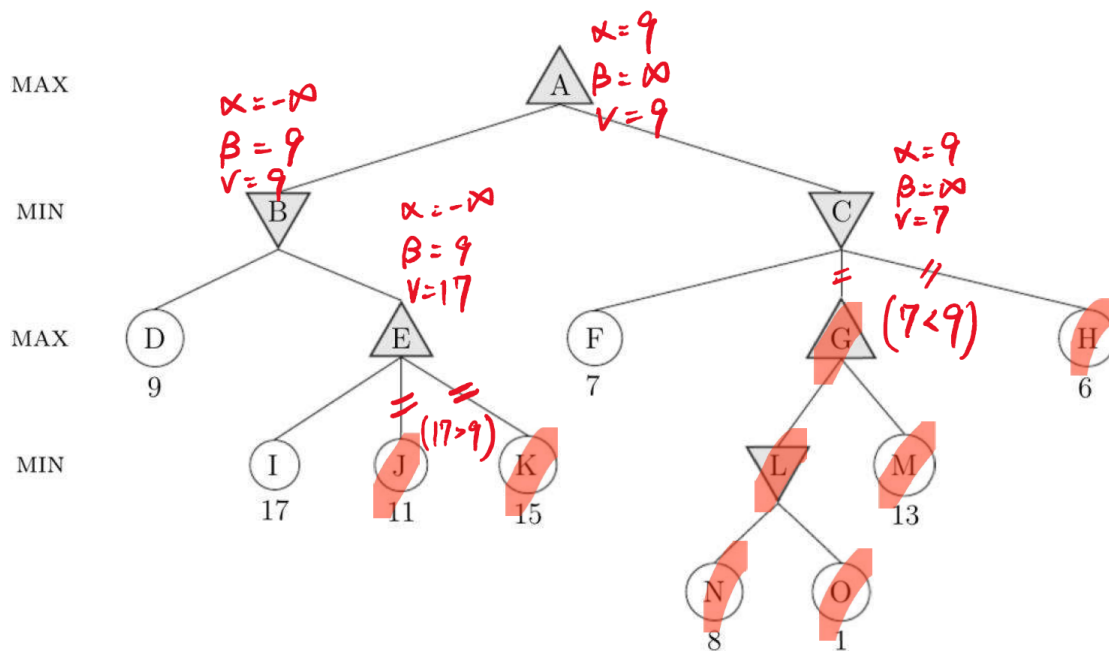
Please email to fai-ta@csie.ntu.edu.tw if there's any mistake you find in this sample solution.

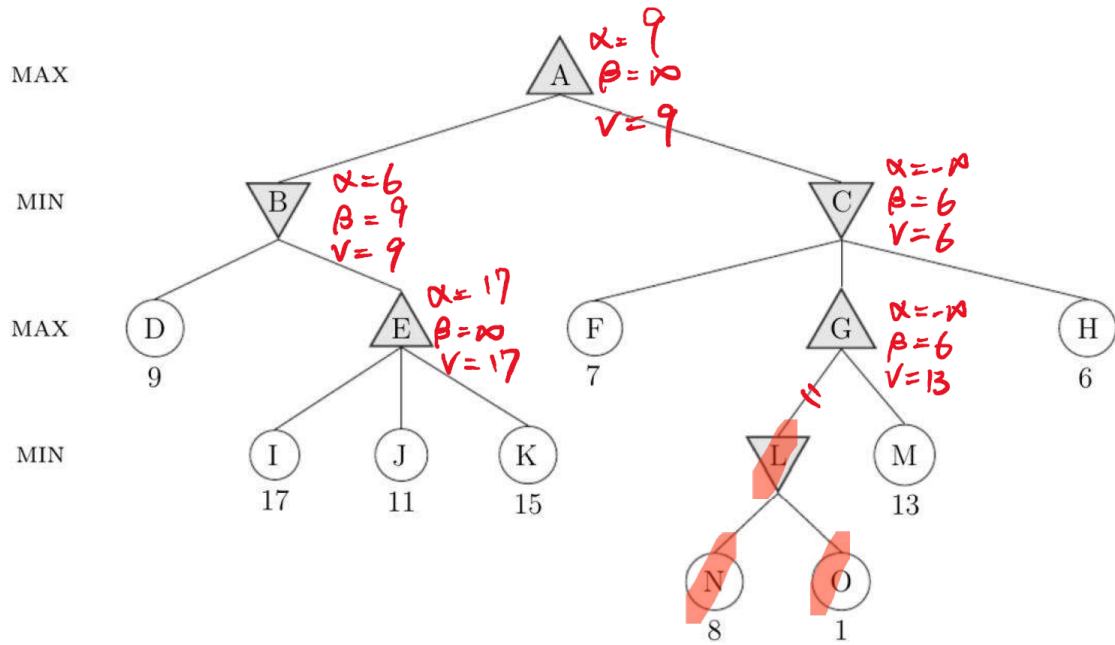## Problem 1
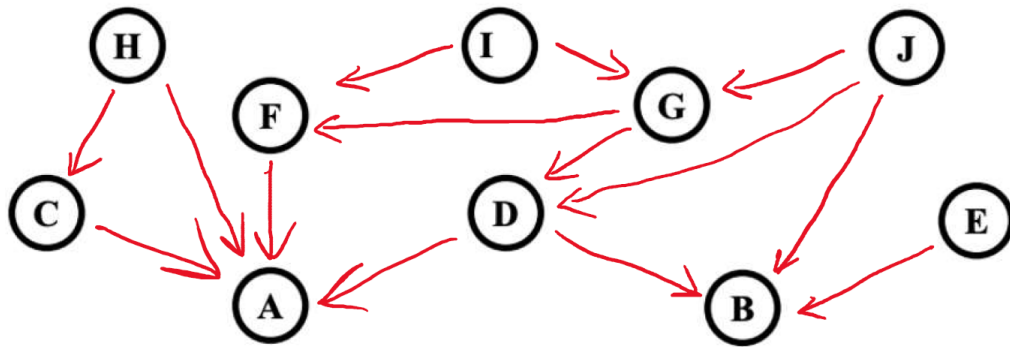
a)

b)

c)

MAX

MIN

MAX

MIN

$\alpha = 9$
$\beta = \infty$
$V = 9$

A

$\alpha = 6$
$\beta = 9$
$V = 9$

B

$\alpha = -\infty$
$\beta = 6$
$V = 6$

C

$\alpha = 17$
$\beta = \infty$
$V = 17$

$\alpha = -\infty$
$\beta = 6$
$V = 13$

D
9

E

F
7

G

H
6

I
17

J
11

K
15

L

M
13

N
8

O
1

Problem 2

(a) $P(A|C, H, F, I, D)P(B|D, E, G, J)P(C)P(D|I)P(E|J)P(F)P(G|I)P(H|I)P(I)P(J)$

(b)

H   I   J

F   G

C   D   E

A   B

(c) $P(C = f)P(R = f|C = f)P(S = t|C = f)P(W = t|R = f, S = t)$

Problem 3

(a) A, C, D, G, I, J

(b) L

Problem 4