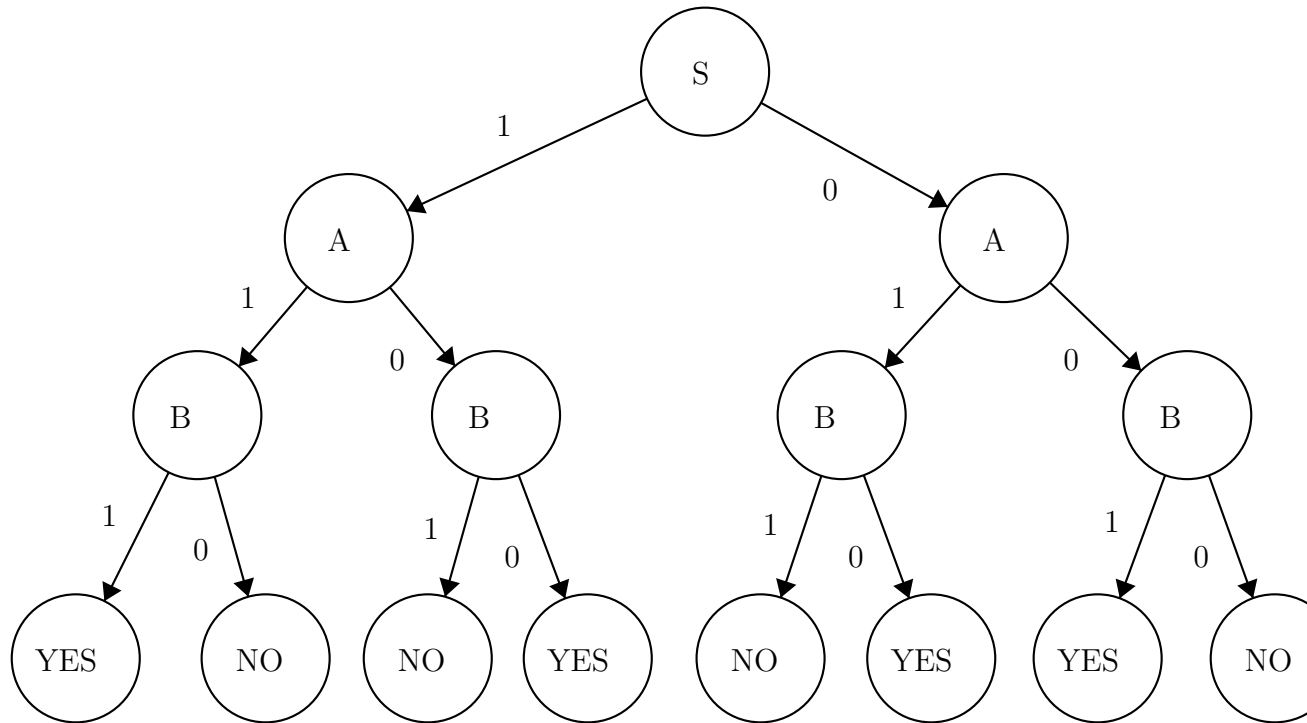


Question 1



RN 18.7

a

a1

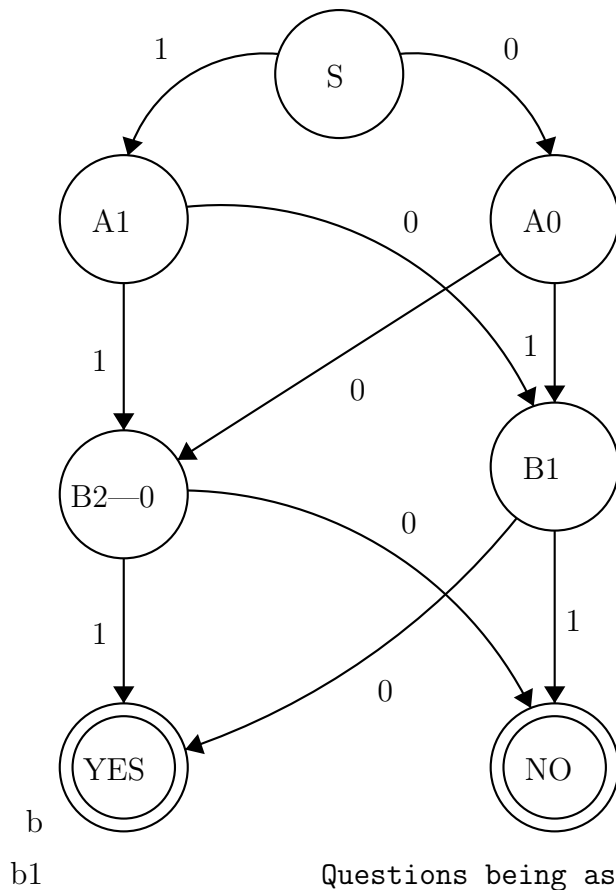
Questions being asked at each level:

S = 'Bit in 1st position?'

A = 'Bit in 2nd position?'

B = 'Bit in 3rd position?'

*Note that the subscripts have been lost, they are in original



Questions being asked at each level:

S = 'Bit in 1st position?'

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B = 'Bit in 3rd position?'

*Note that the subscripts have been lost, they are in original

Question 2

RN 18.15 Minimal L_1 loss = 7, known as median
Minimal L_2 loss = 20, known as mean

Question 3

RN 18.18 a Formula : $Error = \epsilon^K$

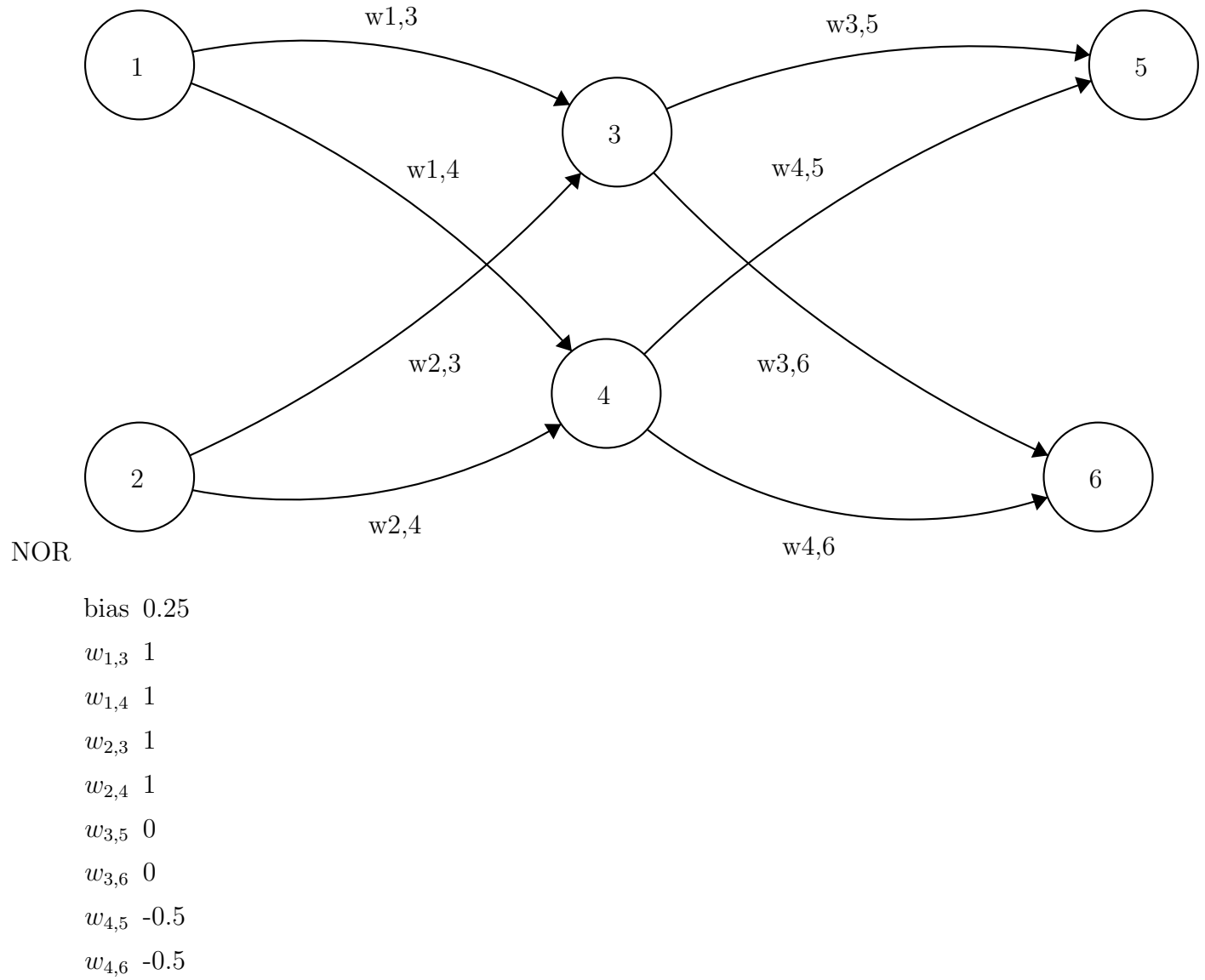
$$K=5 \quad Error = 0.1^5 = 1.00 \times 10^{-5}$$

$$K=10 \quad Error = 0.2^{10} = 1.02 \times 10^{-7}$$

$$K=20 \quad Error = 0.4^{20} = 1.10 \times 10^{-8}$$

c Even if the independence assumption is removed, the overall error of the ensemble learning will be much lower than σ since the error rate will be a product of the error rates of each of the hypothesis.

Question 4



Question 5

G8R `def g8r()`