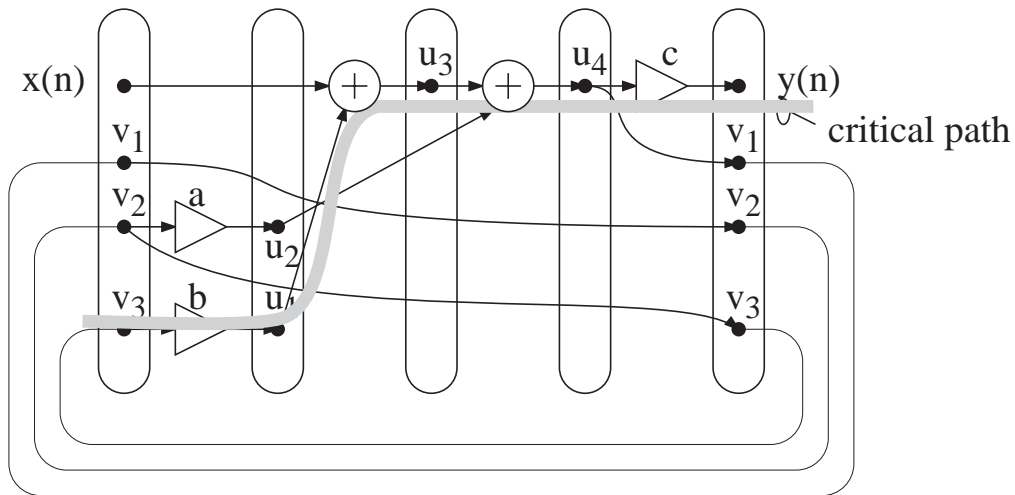


$$7.21 \quad T_{min} = \max \left\{ \frac{T_{opi}}{N_i} \right\} = \max \left\{ \frac{3+1}{2}, \frac{3+1+1}{3} \right\} = 2 \text{ clock cycles}$$

$$f_{max} = \frac{1}{T_{min}} = \frac{f_{clk}}{2}$$

The critical path is shown below.



Since the critical loop is large than 1 sampling period, we have to schedule the operations in two sample periods. The scheduling with the maximal sample frequency is shown below.

