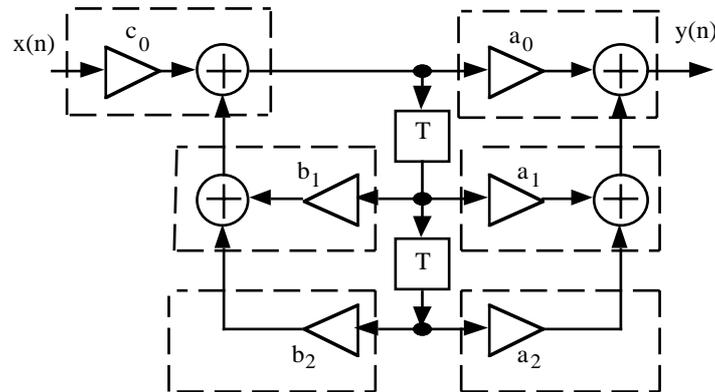


- 7.12 a) There are several ways to combine additions and multiplications into basic operations, but the critical path will contain at least 4 operations.



- b) The number of clock cycles per sample is $\frac{100 \cdot 10^6}{1.25 \cdot 10^6} = 80$

6 PE operations requires $\frac{6 \cdot 20 \cdot 1.25 \cdot 10^6}{100 \cdot 10^6} = 1.5 \Rightarrow 2$ PE

A feasible scheduling is shown below.

