Lab 2 Iteration Bound

(Due : 2022/10/13)

1. For the DFG shown in fig.2.17，the computation times of the nodes are shown in parentheses。Compute the iteration bound of this DFG using the LPM algorithm。Assuming that addition and multiplication require 1 and 2 u.t，respectively。(45%)

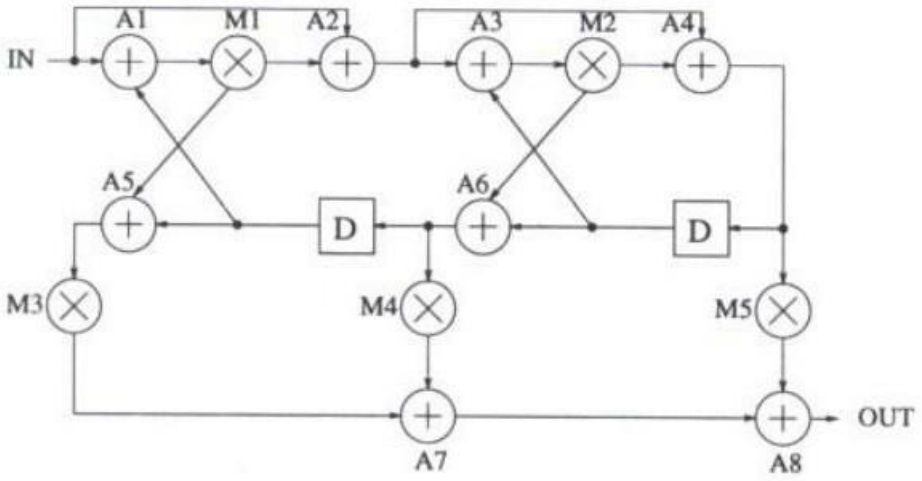
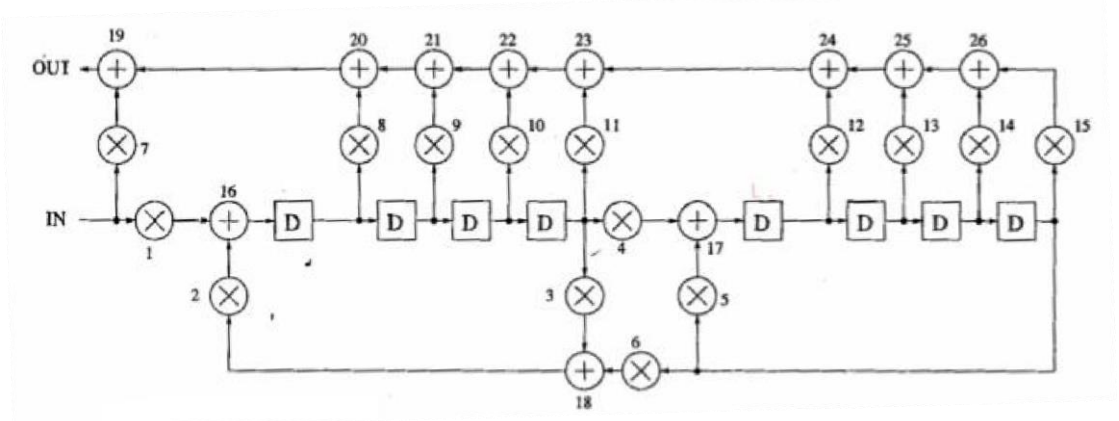


Fig. 2.17 The lattice filter used in Problem 6.

2. For the DFG shown in fig.2.18，the computation times of thenodes are shown in parentheses。Compute the iteration bound of this DFG using the LPM algorithm. Assuming that addition and multiplication require 1 and 2 u.t，respectively.(45%)



3.(Additional) If the critical path algorithm (using Graph/Any data structure) is realized, there will be additional bonuses of at least 10%. The critical path algorithm should accept arbitrary circuits instead of using customized route. Therefore, the theorem in realizing the critical path algorithm should be expressed in detail. If advanced algorithm is adopted, more bonus would be obtained, to maximum of 20% of bonus.