

Indian Institute of Science

E9–252: Mathematical Methods and Techniques in Signal Processing

Instructor: Shayan G. Srinivasa

Homework #4, Fall 2017

Late submission policy: Points scored = Correct points scored $\times e^{-d}$, $d = \#$ days late

Assigned date: Sept. 18th 2017

Due date: Sept. 25th 2017 by end of the day

PROBLEM 1:

Solve problems 4.2, 4.12 and 4.14 from P. P. Vaidyanathan's book.

PROBLEM 2:

Devise an efficient architecture to exploit the mirror/symmetric properties of polyphase components in decimation and interpolation filters.