EE 621 - HW 4 – Fall 22

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**Using ONLY instructions of the dxpRISC521 processor, show the assembly code that**

**implements one of the sequential multiplication algorithms shown below.**

**Pseudocode:**

m-bit a (multiplicand)

n-bit x (multiplier)

result: m+n+1bits product (p)

wire m partial\_product

wire m+1 temp

init p = 0;

for j = 1:n-1

partial\_product = a AND x[j];

temp = p[m+n+1 : n+1] + partial\_product;

p[m+n+1 : n+1] = temp

SRL p, #1 (shift right logic p by 1)