Lab Assignment 3

1. Implement Multiplication Algorithm According to following Flowchart with Verilog Code and validate the result with DE2 115.

Multiply operation

Multiplicand in B

Multiplier in Q $A_s + Q_s \oplus B_s$ $Q_s + Q_s \oplus B_s$ A + 0, E + 0 SC + n - 1 = 0 Q_n = 1 EA + A + B $\Rightarrow 0$ SC + SC - 1 $\Rightarrow 0$ (product is in AQ)

Figure 10-6 Flowchart for multiply operation.