

Multiplication of unsigned Binary numbers;

② 62×31

$$\begin{array}{r} 128 \times 64 \\ \hline 768 \\ 8192 \\ \hline \end{array}$$

$$\begin{array}{r} 62 \\ 31 \\ \hline 2 \mid 62 \\ 2 \mid 31 - 0 \\ 2 \mid 15 - 1 \\ 2 \mid 7 - 1 \\ 2 \mid 3 - 1 \\ 1 - 1 \\ \hline = 111110 \end{array}$$

$$\begin{array}{r} 2 \mid 31 \\ 2 \mid 15 - 1 \\ 2 \mid 7 - 1 \\ 2 \mid 3 - 1 \\ 2 \mid 1 \\ \hline = 11111 \end{array}$$

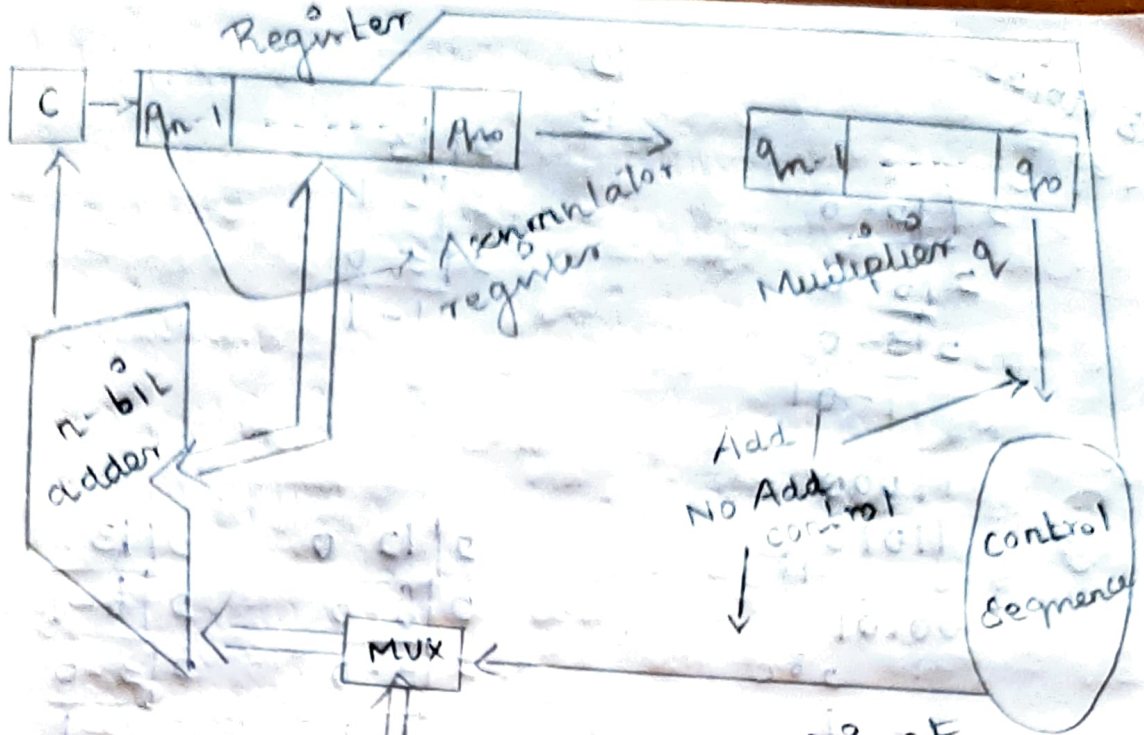
$$\begin{array}{r} 111110 \\ (x) 11111 \\ \hline 111110 \\ 111110 \\ 111110 \\ 111110 \\ \hline 1111000010 \end{array}$$

512 256 128 64 32 16 8 4 2 1

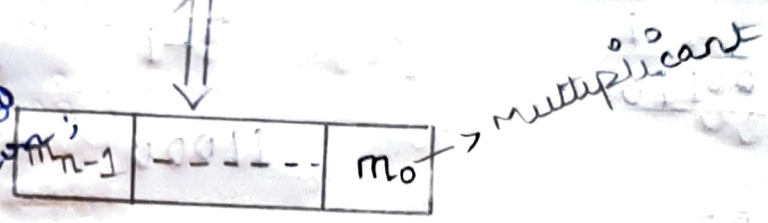
$$\begin{array}{r} 128 \\ 256 \\ 512 \\ 1024 \\ 2 \\ \hline 1922 \end{array}$$

$$\begin{array}{r} 62 \times 31 \\ \hline 186 \\ 1922 \end{array}$$

Verified ✓



Block diagram of Multiplication



Multiplier M

