**COA ASSIGNMENT NO. :- 1**

**Aim:-**  Multiply the following using Booth’s Algorithm.

Multiplicand = (+11) Multiplier = (-6)

**Objective:-** To multiply the given numbers using Booth’s Algorithm.

**Theory:-** Multiplicand = (+11) = (0111)

Multiplier = (-6) = (0110 – 1010)

**C**  **A** **Q Q-1**

0 0000 1010 0 Initial Values

0 0000 0101 0 Right Shift; (1)

1 1010 0101 0 AC-M;

0 1101 1010 1 Right Shift; (2)

1 0010 1010 1 AC+M;

0 0010 1101 0 Right Shift; (3)

1 1011 1101 0 AC-M;

1 1101 1110 1 Right Shift; (4)

**Output:-**

(+66) = (001000010);

(-66) = (110111110);