

**Switching Theory & Logic Design Laboratory**  
**CSE Department, IIT Kharagpur**  
***Spring Semester 2023-24***

**Module 1 : Combinational Logic Circuits**

**Assignment 5:**

Design and test a Full Adder / Subtractor using 4:1 Multiplexer (IC) and minimum number of logic gates, as per the given specifications :

- If  $S = 1$  : Full Adder or If  $S = 0$  : Full Subtractor

(1 day)