BANGLADESH UNIVERSITY OF ENGINEERING AND TECHNOLOGY

Department of Computer Science and Engineering

January 2021 CSE 206 Online Assignment on

Basics of Multiplexers (Section: A1 & B1)

Implement the following logic circuit using exactly two 4x1 multiplexers and necessary amount of 2x1 multiplexers and basic logic gates.

$$1. f(A, B, C, D) = \Sigma(2, 3, 6, 9, 11, 13)$$
$$2. f(A, B, C, D) = \Sigma(4, 7, 9, 10, 12, 13)$$
$$3. f(A, B, C, D) = \Sigma(2, 3, 5, 10, 14, 15)$$
$$4. f(A, B, C, D) = \Sigma(3, 4, 7, 9, 10, 11)$$
$$5. f(A, B, C, D) = \Sigma(3, 4, 5, 8, 10, 15)$$

Divide your roll number by 5. The remainder is your assigned problem if the remainder is non-zero, otherwise problem 5 is.

Create a PDF document containing a hand-written circuit diagram along with the truth table. Submit the PDF file and the .circ file simulated in Logisim in a single zip file named by your student ID.