

# CSE 206 - January 2021

## Encoder Online

07, June, 2021 (Section A2+B2)

Using the ICs of basic logic gates, design and implement a 4 to 2 priority encoder with the priority of the input data bits ( $D_3D_2D_1D_0$ ) as given below.

**Problem 0:**  $D_2, D_1, D_3, D_0$  (given in order of ascending priority)

**Problem 1:**  $D_3, D_1, D_0, D_2$  (given in order of descending priority)

**Problem 2:**  $D_2, D_3, D_1, D_0$  (given in order of ascending priority)

**Problem 3:**  $D_1, D_3, D_0, D_2$  (given in order of descending priority)

**Problem 4:**  $D_2, D_1, D_3, D_0$  (given in order of ascending priority)

Divide your roll number by 5. The remainder is your assigned problem. Create a PDF containing a hand-written document where you must show the complete truth table with  $2^4 = 16$  combinations of the 4 input data bits. Submit the PDF file and the .circ file simulated in Logisim in a single zip file named by your student ID.