CSE 206 - January 2021
Encoder Online

06, June, 2021 (Section A1+B1)

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_0, D_1, D_3 (given in order of descending priority)
Problem 1: D_2, D_3, D_1, D_2 (given in order of ascending priority)
Problem 2: D_0, D_1, D_3, D_2 (given in order of descending priority)
Problem 3: D_3, D_2, D_0, D_1 (given in order of ascending priority)
Problem 4: D_3, D_0, D_2, D_1 (given in order of descending 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.