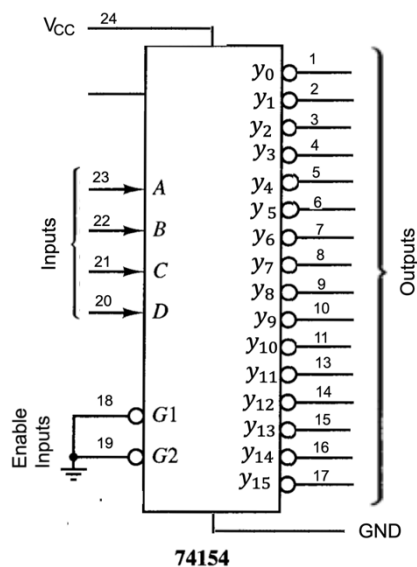QUIZ 2

ECE 111 DIGITAL CIRCUITS

Date: March 7, 2022.   Max. Marks: 10

ANSWER ALL QUESTIONS

Q1.   Figure 1 shows the symbol of 74154, 4 to 16 decoder. Using this decoder, give the logic circuit realization for the following logic functions using 74154 and minimum number of logic gates.

$$f_1(W, X, Y, Z) = \sum m(1, 9, 12, 15)$$
$$f_2(W, X, Y, Z) = \sum m(0, 1, 2, 3, 4, 5, 7, 8, 10, 11, 12, 13, 14, 15)$$

Figure 1

Q2.   Realise logic function F = $\sum$ (2, 3, 6, 7, 12, 13, 14, 15, 18, 19, 21, 23, 26, 27, 29, 31) using 2:1 MUX.