Ahsanullah University of Science and Technology
Department of Computer Science and Engineering
Course No: CSE2106 Course Title: Digital Logic Design Lab
Experiment 08 & 09

***Experiment* -08**

a. Design a 4-Bit CLA (Carry Look Ahead) Adder Circuit.
b. Design a Magnitude Comparator for 4-Bit Using Logic Gates.

***Experiment* -09** (GOOGLE THE ICs TO HAVE PIN NUMBERs)

a. Design a 4 to 2-Line Priority Encoder Where the Priority is-

$$I_0 < I_1 < I_2 < I_3$$

b. Implement the Following Boolean Function Using
   I. An 8 to 1-Line Multiplexer (IC-74151)
   II. A 4 to 1-Line Multiplexer (IC-74153)

   And Other Basic Gates.

$$F(A, B, C, D) = ǵ(1,3,5,8,11,14)$$

c. Implement the Following Boolean Function Using

   I. 1 to 8-Line De-Multiplexer /3 to 8-Line Decoder (IC-74138)
   II. 1 to 16-Line De-Multiplexer /4 to 16-Line Decoder (IC-74154)

$$F(A, B, C, D) = ǵ(2,3,5,7,11,13)$$