

**Department of Computer Science and Engineering**  
**BRAC University**  
**CSE 260: Digital Logic Design**  
**[Report MUST be hand written]**

***Experiment # 4: Design and Implementation of 4-bit Parallel Binary Adder***

***Experiment # 5: Implementation of 4-bit Magnitude Comparator***

***Experiment # 6: Design circuits using encoder & decoder.***

***Experiment # 7: Function Implementation Using MUX.***

***Required Components for Lab - 4:***

1. IC 7408
2. IC 7432
3. IC 7486
4. IC 7483

***Required Components for Lab - 5:***

1. IC 7408
2. IC 7432
3. IC 7404
4. IC 4077

***Required Components for Lab - 6:***

1. IC 74138
2. IC 74148

***Required Components for Lab - 7:***

1. IC 74153
2. IC 7408
3. IC 7432
4. IC 7404

***Experimental Setup:***

\*Attach the **signed** circuit diagram or experimental setup part from the lab

***Experimental Setup for Lab - 4:***

***Experimental Setup for Lab - 5:***

***Experimental Setup for Lab - 6:***

***Experimental Setup for Lab - 7:***

***Discussion:***

Answer the following questions also as part of discussion:

1. Design a circuit that takes a 3-bit number as input and outputs the corresponding excess-3 using encoder and decoder.
2. Design a 2-bit Parallel adder using exactly four 8:1 Mux(s)