CS221-Assigment
Due date for submission 31 Oct 2020

Submission procedure: Written/typed upto four pages and submit/upload PDF document (scanned copy of written) on to CS221 MS Team assignment upload

1. *Design counter which count the following sequence and repeat. (you should use minimum number of flipflop, and also you are allowed to any extra circuitry if you wish other than required number flip-flops)*

   5, 7, 2, 5, 6, 3, 1, 4, 5, 7, 2, 5, 6, 3, 1, 4, 5, 7, 2, 5, 6, 3, 1, 4,…

2. Design a 4-bit register to support following eight functions and draw a neat diagram for your designed register
   - i. Parallel input
   - ii. Parallel output
   - iii. Left shift with rotate
   - iv. Right shit with rotate
   - v. Left shift with left serial in, serial out
   - vi. Right shift with right serial in, serial out
   - vii. Complement the bits
   - viii. Swap bits (0th bit goes to 3rd bit, 3rd bit goes to 0th bit, 1th bit goes to 2th bit and 2nd bit goes to 1th bit)