

### **Problem Set 3**

**1. Write VHDL code to describe the behaviour of a JK flipflop with asynchronous reset (rst) using an if-else statement**

Input ports: j,k,rst,clk

Output port: q, qb

**2. Write a VHDL program to build a 4-bit binary to gray, and gray to the binary code converter. Verify the output waveform of the program (digital circuit) with the truth table for the code converter.**

**3. Do the behavioural modelling of D-latch and D-FF with asynchronous reset.**