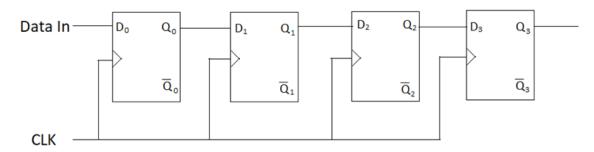
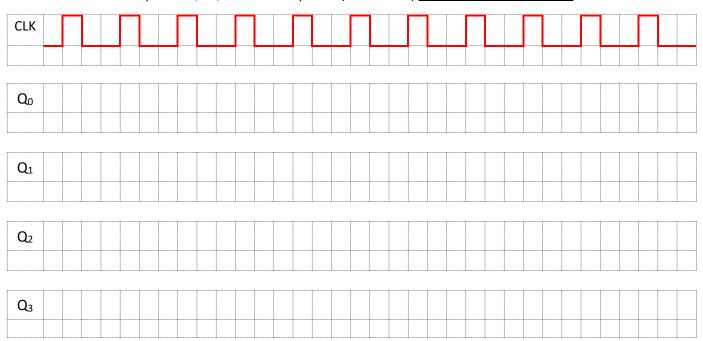
## **Introduction to Digital Computing**

Homework 8 - Shift Registers

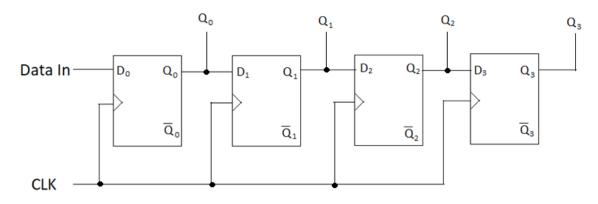
Question 1) For the following shift register, if the input data is 110010112,



What would be the output data, Q<sub>3</sub>, at the tenth pulse? (Show work)

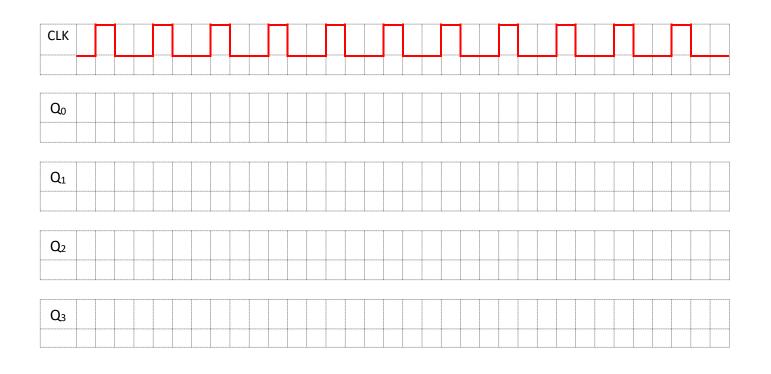


Question 2) For the following shift register, if the input data is 110111001<sub>2</sub>,



What would be the output data at the sixth pulse?

 $Q_3 \qquad Q_2 \qquad Q_1 \qquad Q_0 \qquad \qquad$ 



## Question 3) Technical writing practice

Imagine that you have to write a letter to the chairperson of the Engineering Technology Department about the
technical difficulties you have to face with online learning. In the letter, write the points, in order of importance starting
with the most important, that describe the need to create new technologies and / or methods to improve student online
learning.