

Digital Logic & Design (Lab)

Examination: Lab

Instructor: Muhammad Amin

Programs: BS (SE)/BS (CS)

Course Codes: SEC-201/CSC-201

EDP Codes: 102007017

Semester: Summer 2020

Date: Oct. 5, 2020

Timing: 9:00am to 1:00pm

Note: Use MultiSim to design the following circuits. Use truth tables where necessary.

Q.1 Design and verify the logic circuit for the following:

- (a) Half adder using logic gates
- (b) Half-subtractor using logic gate
- (c) J K Flip flop
- (d) Serial in-serial Out shift register
- (e) Synchronous BCD Counter