



BLG 231E - Digital Circuits

Assignment 5

Due Date: Friday, January 7, 2022, 23:59.

- You may draw tables and figures by hand or using a computer program if you want. If you draw figures by hand, use a ruler. PLEASE BE NEAT! If we cannot read or follow your solution, no partial credit will be given.
- **Consequences of plagiarism:** Any cheating will be subject to disciplinary action.
- **No late submissions** will be accepted. Do not send your solutions by e-mail. The only valid submission method is uploading your file to Ninova before the deadline.
- **Submissions:** Submit your solution PDFs to Ninova. Please **write your full name** (first name and last name) **and Student ID** into your solution PDFs.

Analyze the synchronous sequential circuit given in the figure below.

1. Construct the state/output table.
2. Explain only for the State $Q_1Q_0 = 11$ and $X=1$ how you determined the next state values $Q_1^+Q_0^+$.
3. Draw the state diagram.

