BANGLADESH UNIVERSITY OF ENGINEERING AND TECHNOLOGY

Department of Computer Science and Engineering January 2021 CSE 206 Online Assignment on Advanced Counters (Section: A2 & B2)

Using flip-flops and basic gates, design and implement a synchronous binary DOWN counter with the following sequence. The sequence with the serial no. that matches your roll % 5 should be chosen from the below list:

- 1. $0 \rightarrow 2 \rightarrow 3 \rightarrow 5 \rightarrow 0$
- 2. $1 \rightarrow 7 \rightarrow 2 \rightarrow 6 \rightarrow 1$
- 3. $2 \rightarrow 1 \rightarrow 4 \rightarrow 7 \rightarrow 2$
- 4. $3 \rightarrow 5 \rightarrow 6 \rightarrow 4 \rightarrow 3$
- 5. $4 \rightarrow 1 \rightarrow 7 \rightarrow 2 \rightarrow 4$

Report:

Create a PDF document containing the truth tables, K-maps, circuit diagram etc. Submit the PDF file and the .circ file simulated in Logisim in a single zip file named <Roll_No>.zip.