Sequential Analysis

ELEC 311
Digital Logic and Circuits
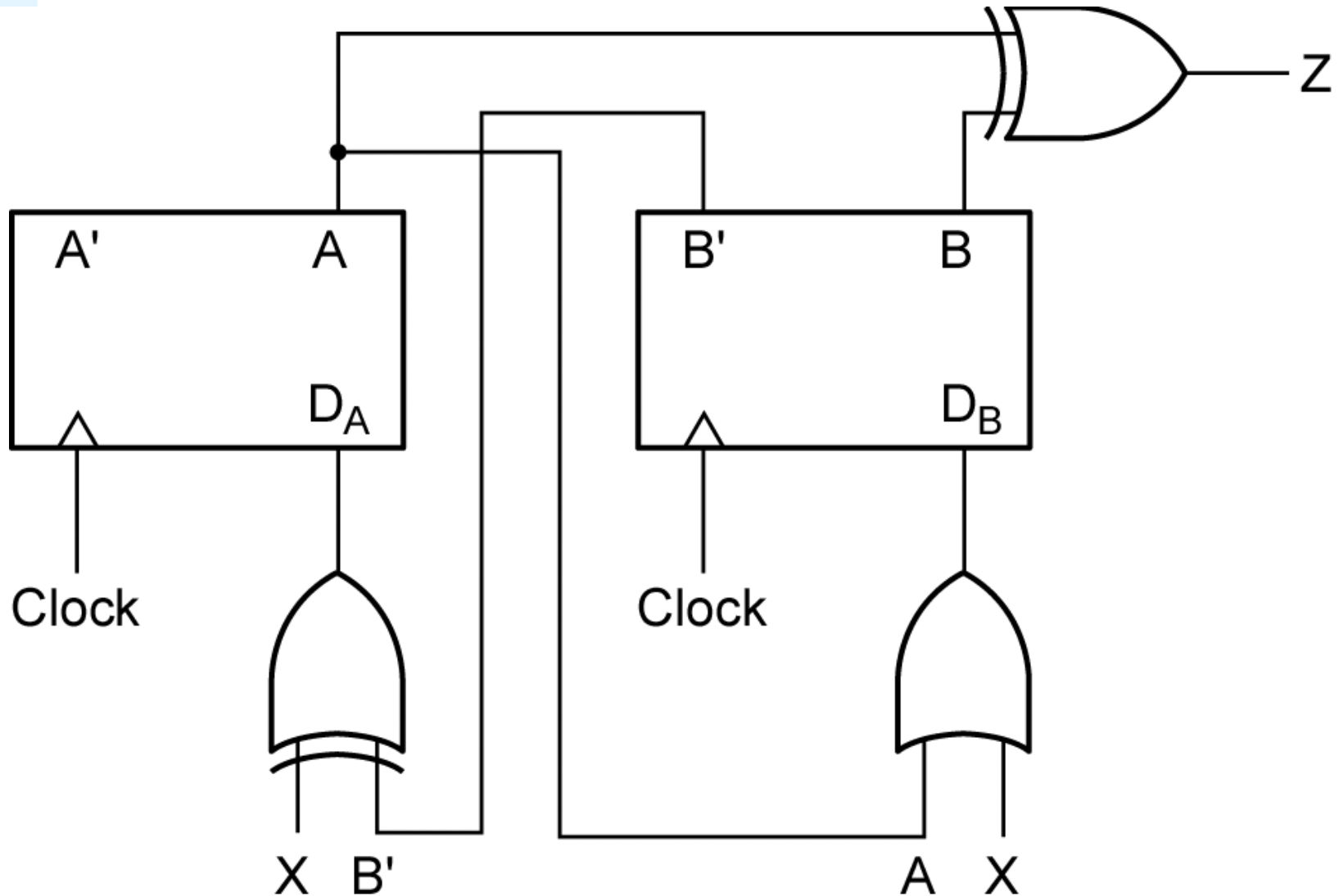## Dr. Ron Hayne

Images Courtesy of Cengage Learning
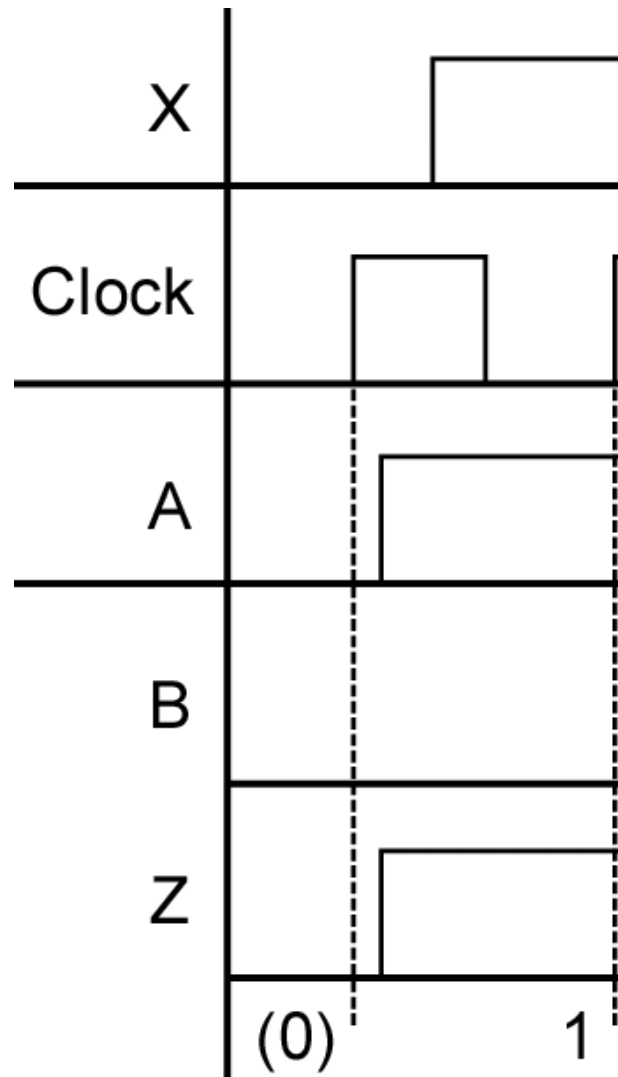
State Tables and Graphs

Present State	Next State		Output Z
	X = 0	X = 1	
S0	S1	S0	0
S1	S3	S2	0
S2	S3	S0	0
S3	S3	S0	1

Analysis Example

Timing Diagram

X

Clock

A

B

Z

(0)   1

Timing Diagram

Timing Diagram

Timing Diagram

X

Clock

A

B

Z

(0)   1   1   0   1
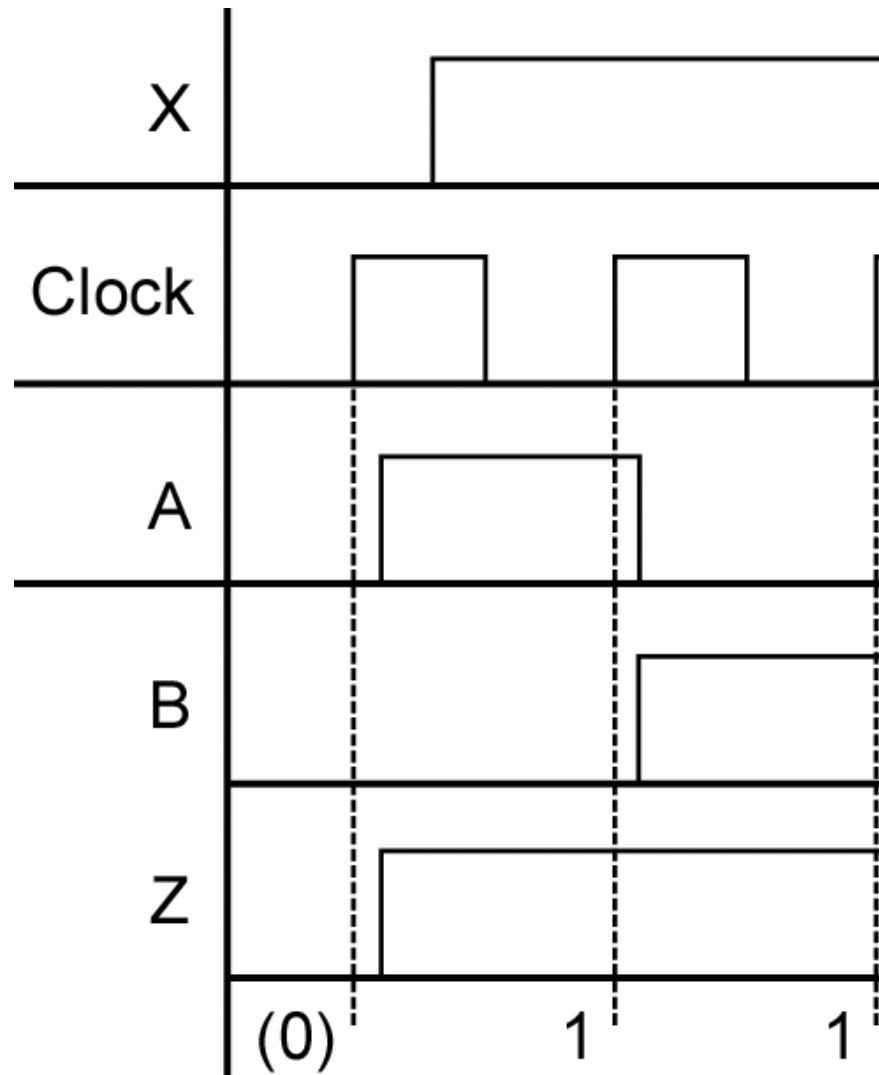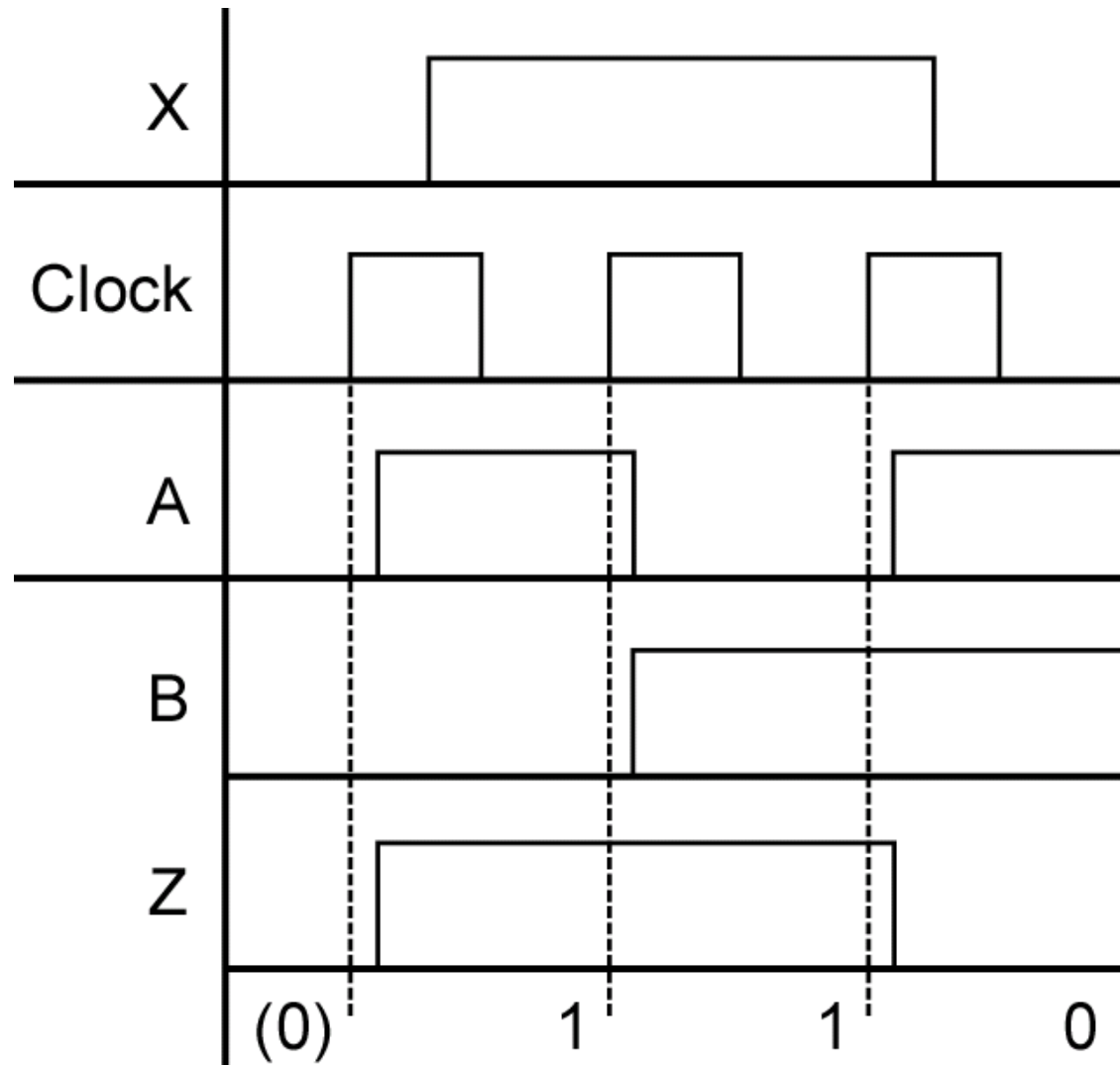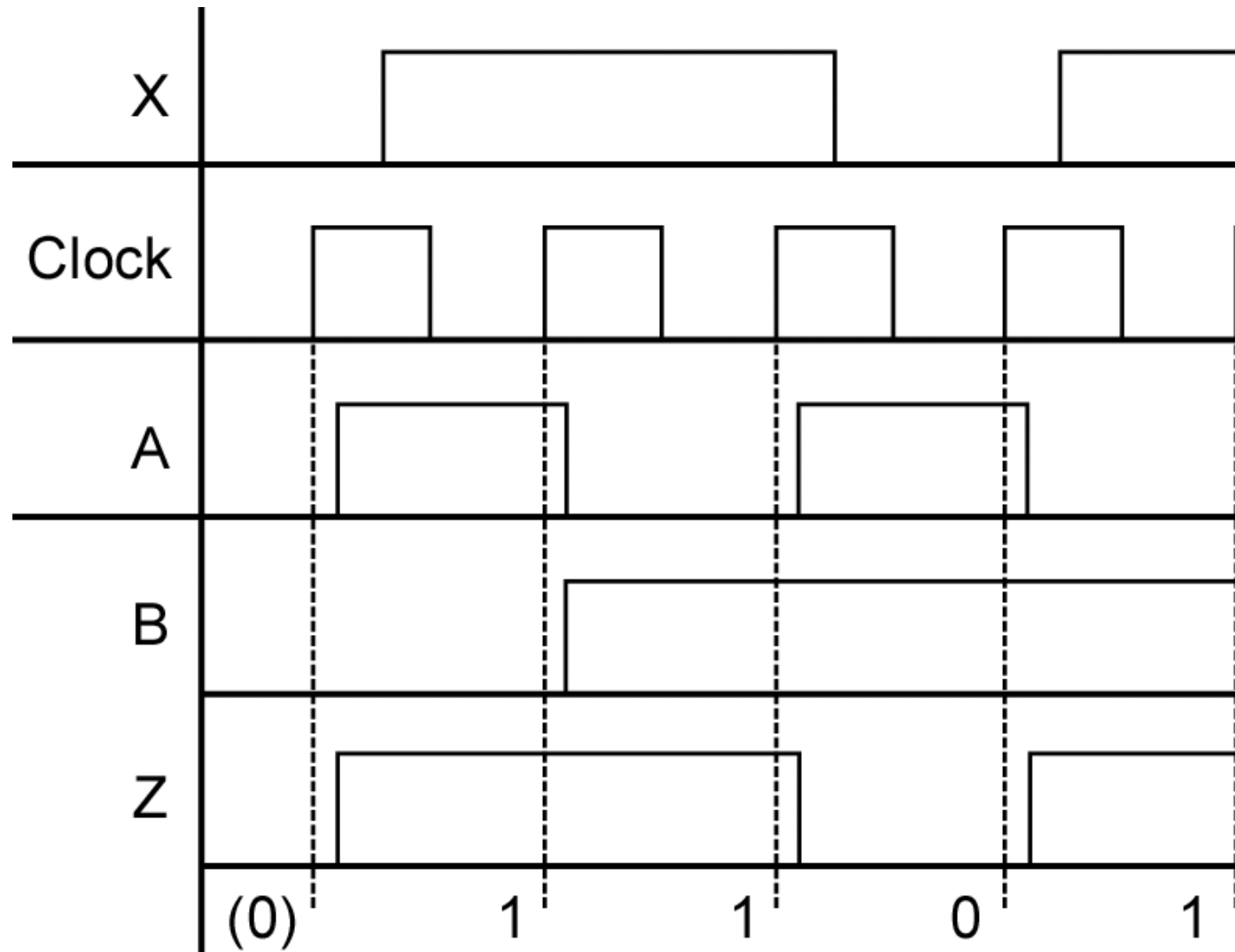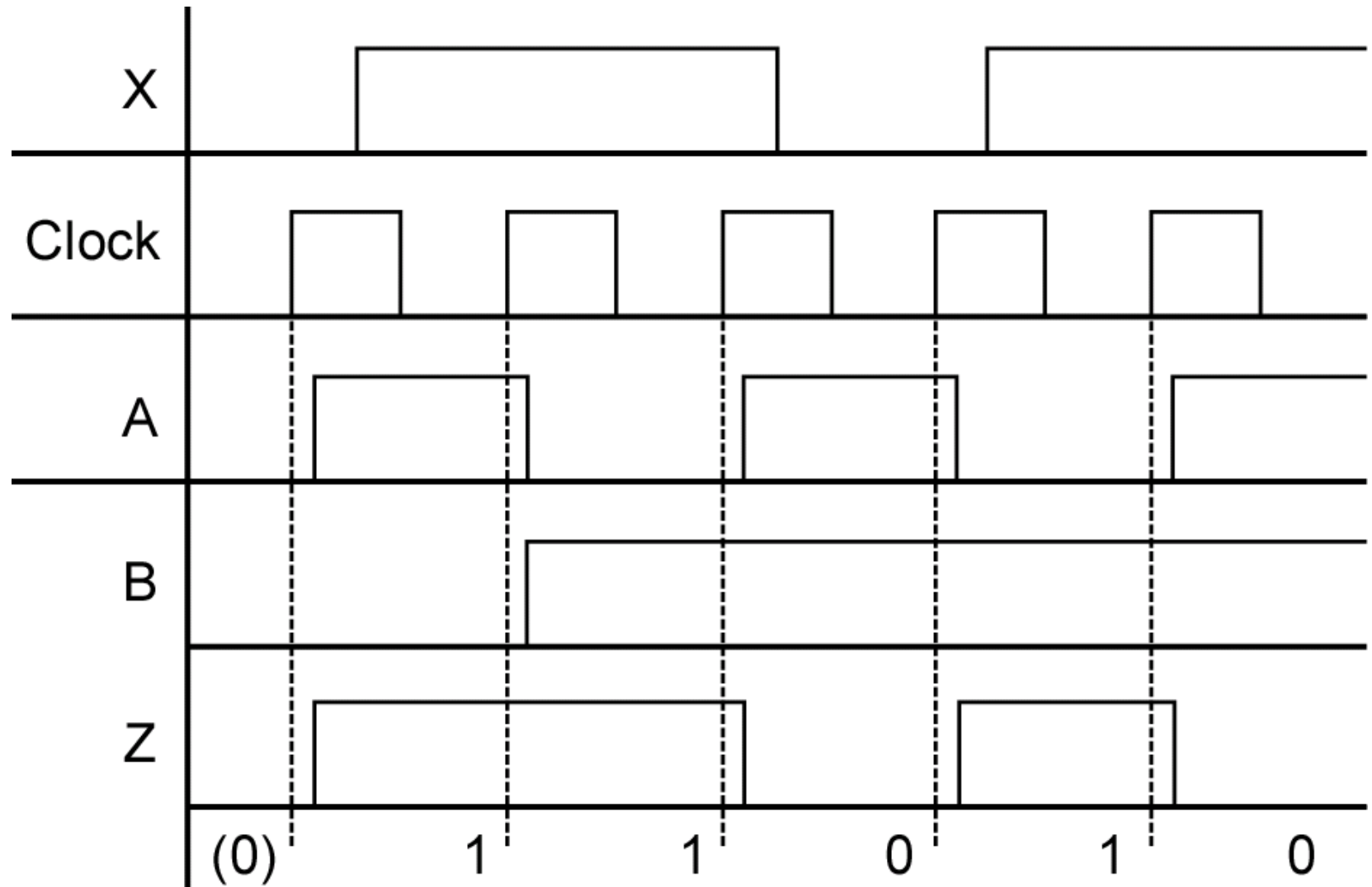
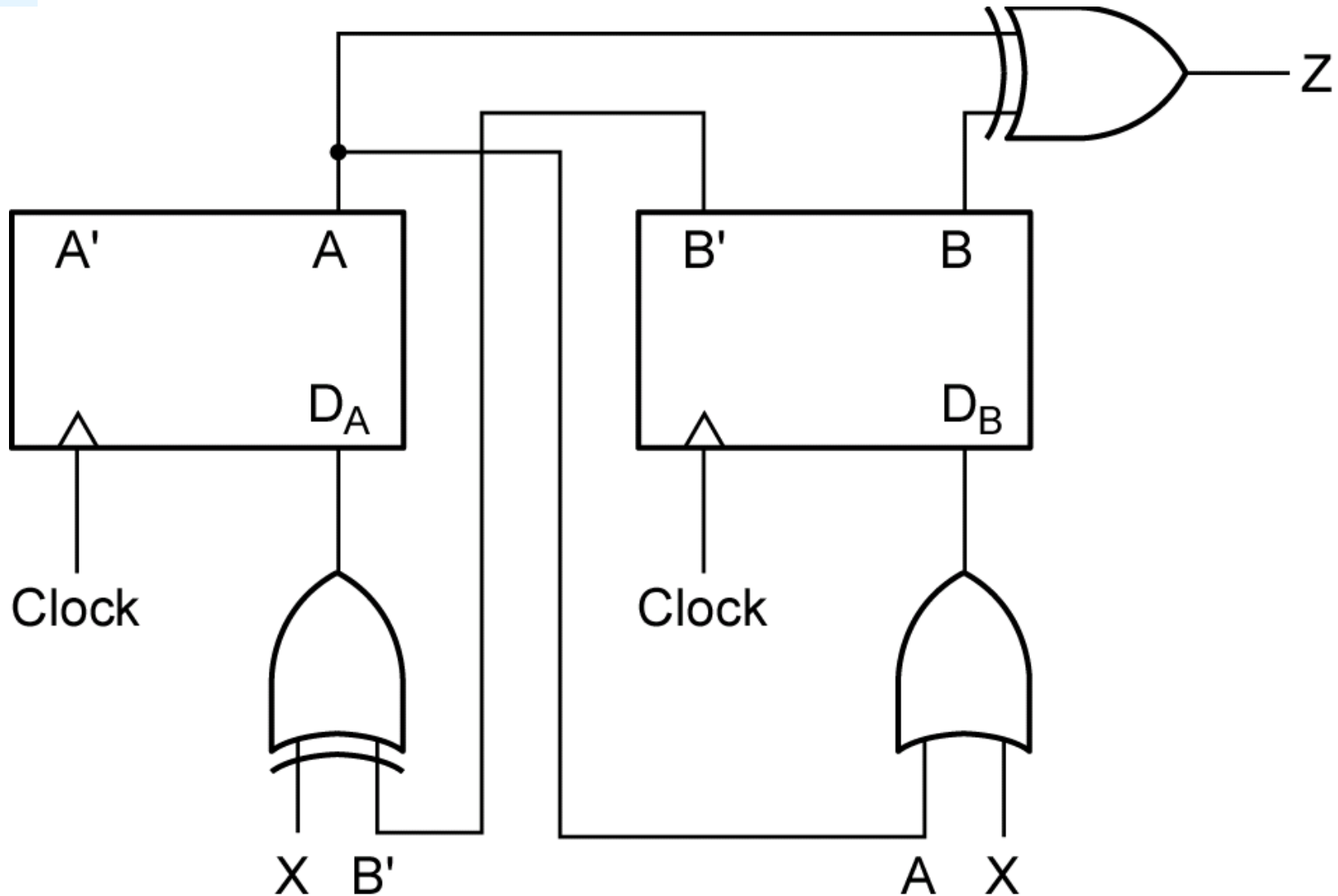# Timing Diagram

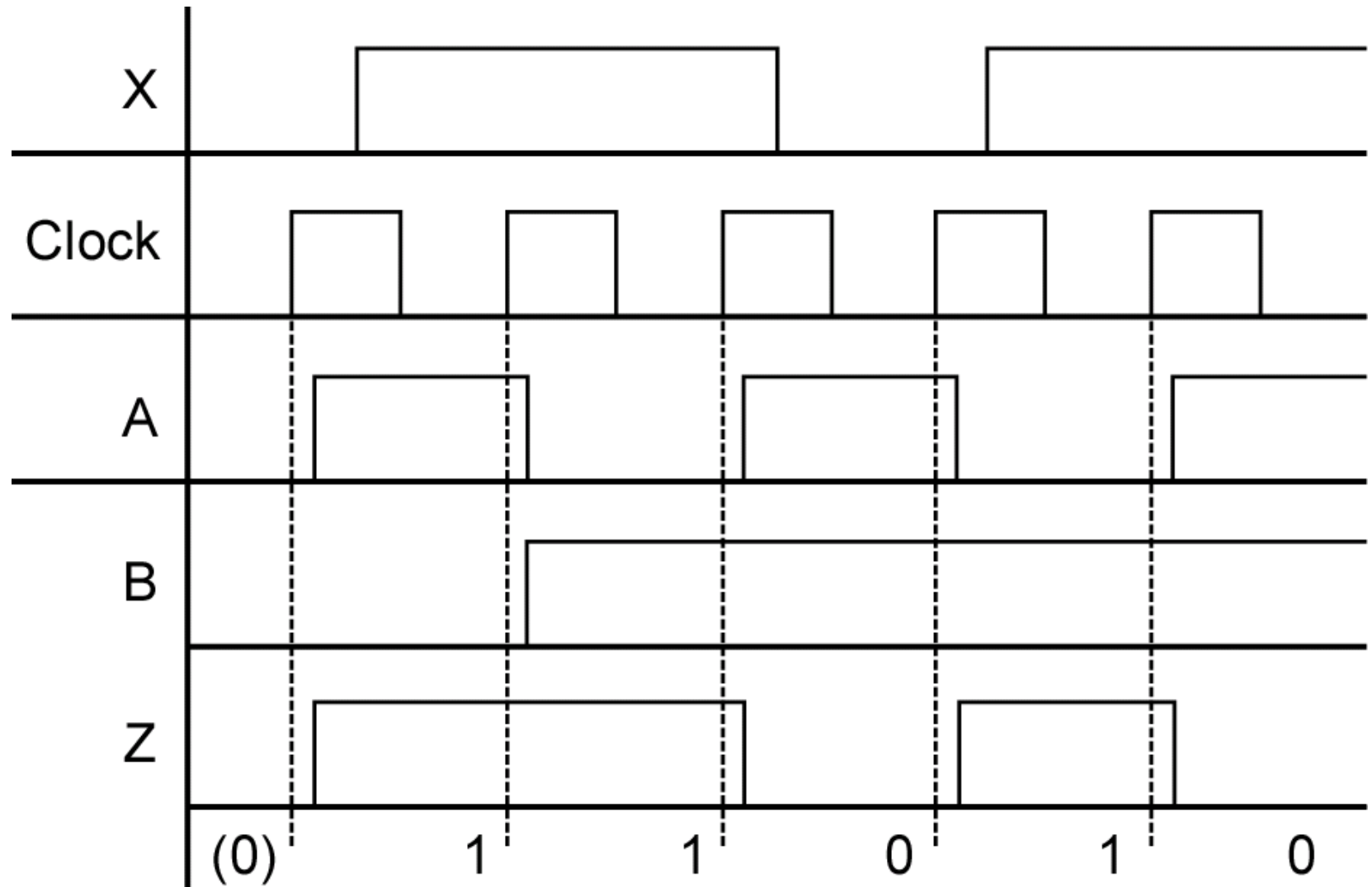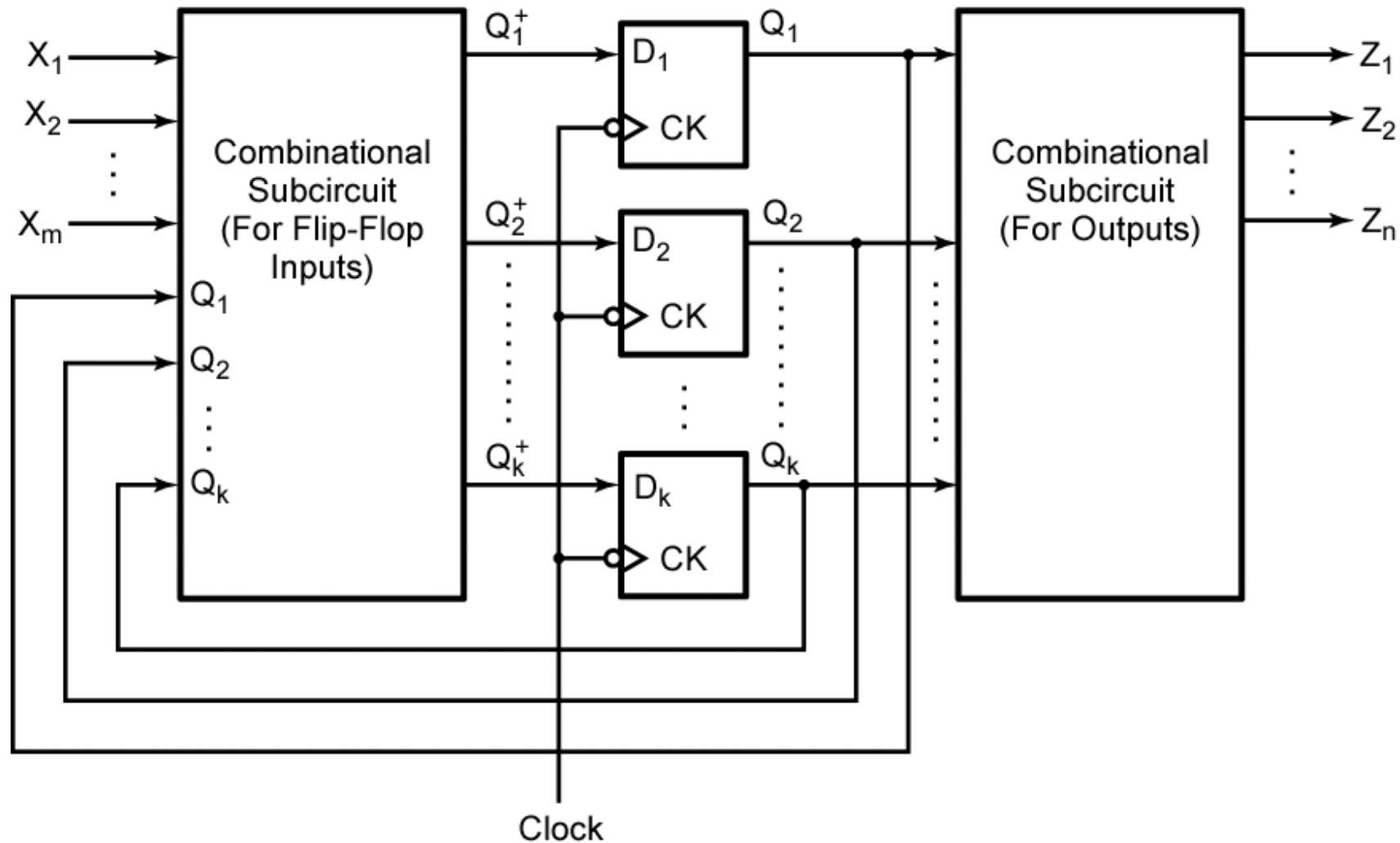# Analysis Example (cont)

Timing Diagram

Sequential Circuits

Summary

◆ Sequential Analysis
   – State Tables
   – State Graphs
   – Timing Diagrams