

National University of Computer and Emerging Sciences, Lahore Campus



Course:	Digital Logic Design Lab	Course Code:	EL227
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Section:	B-2	Pages:	2

Question # 1

A sequential circuit with two D Flip-flops A and B, two inputs x and y, and one output z is specified by the following next-state and output equations.

$$A(t + 1) = x'y + xB$$

$$B(t + 1) = x'A + x'B$$

$$z = A$$

- Construct the state table that consists of the present state, inputs and next state.
- Draw the corresponding state diagram.
- Draw the logic diagram of sequential circuit.
- Briefly explain the working of this sequential circuit i-e what does it actually do?