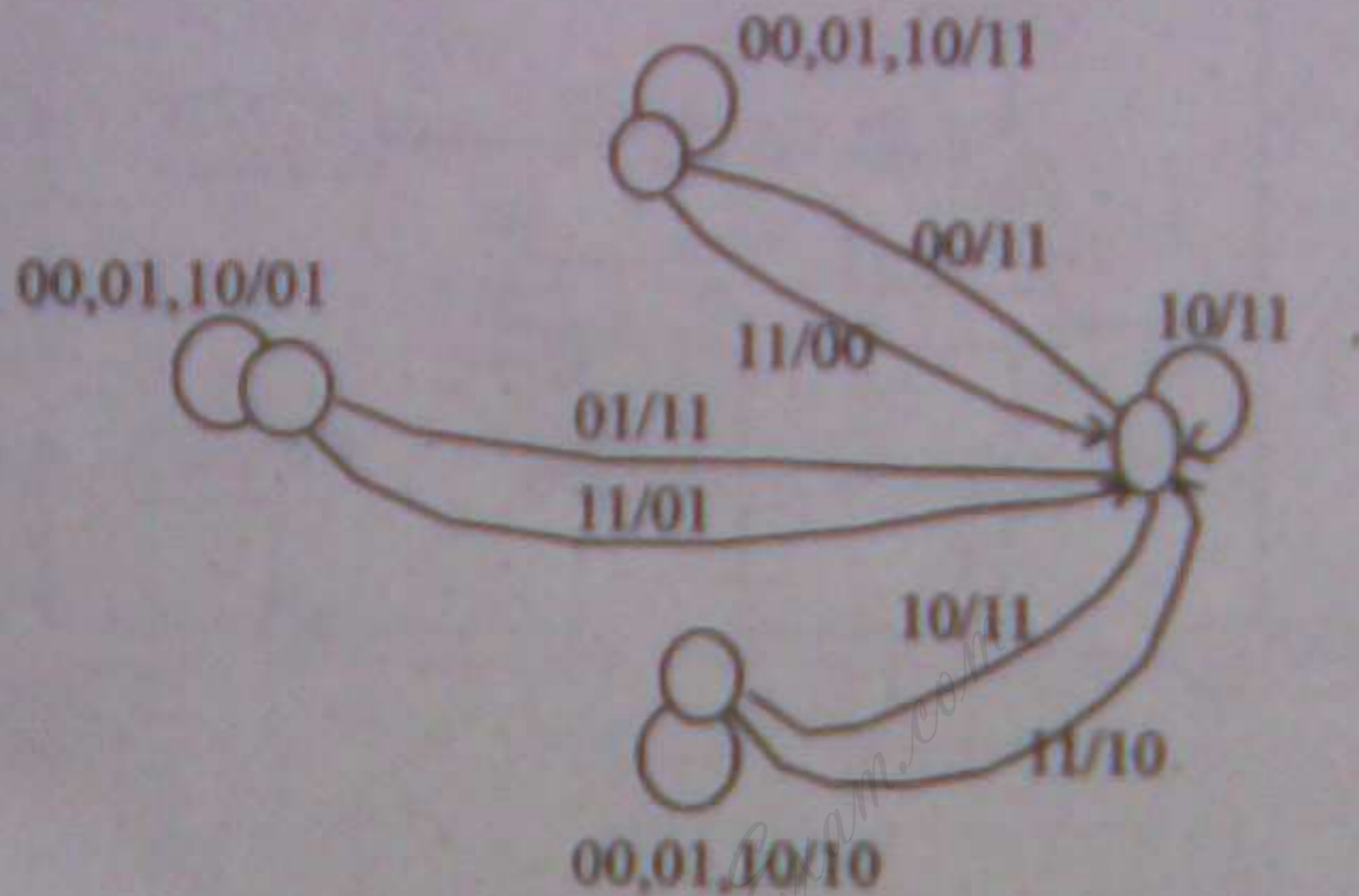


- C) Design a decade counter using D flip flop. 10

UNIT - IV

4. A) Design sequential circuit using J-K flip flop. 10



- B) Design a sequential circuit by full next state equation using J-K flip flop where x and y are input

$$A_{n+1} = xAB + y\bar{A}C + xy$$

$$B_{n+1} = xAC + \bar{y}B\bar{C}$$

$$z = \bar{x}B + A\bar{B}$$

Obtain logic diagram, transition table, state table and state diagram. 10

- C) Design a sequential circuit with two D flip flop A and B and one input x. When $x = 0$, the state of the circuit remains same where as when $x = 1$ the circuit goes to state transition from 00 to 01 to 11 to 10 and back to 00. 10