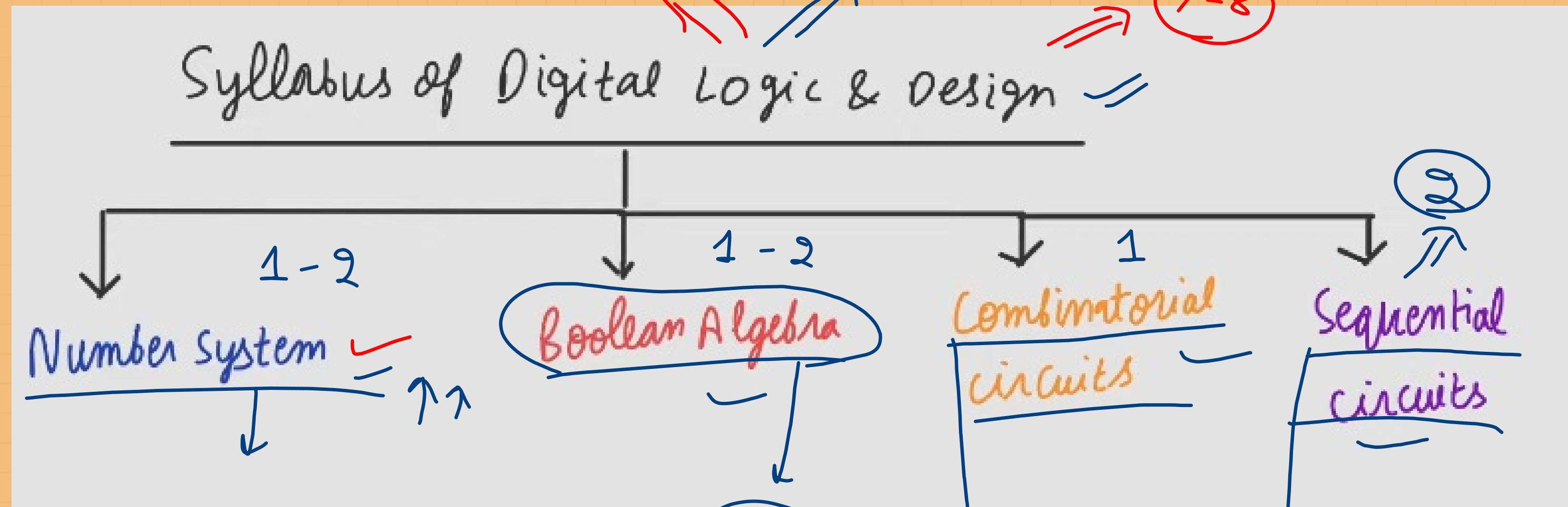


$$( )_2 \rightarrow ( )_5$$

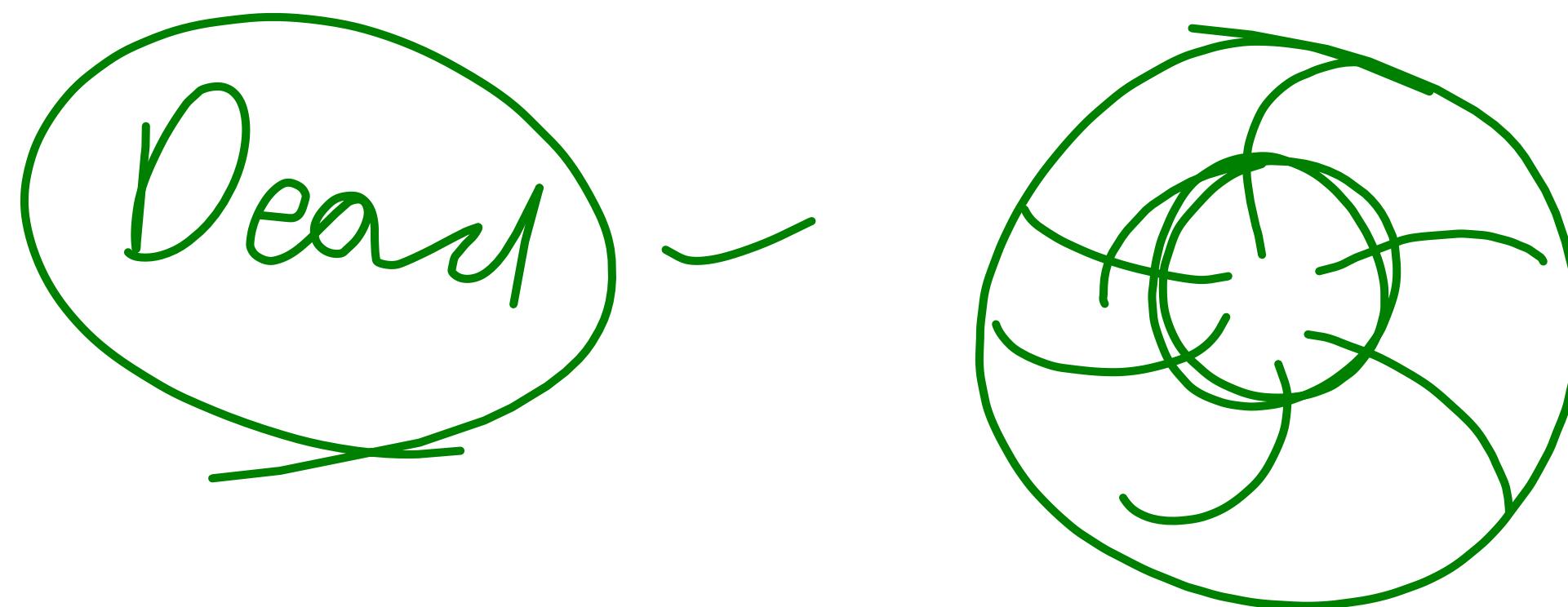
logic



$$( )_2 \rightarrow ( )_5$$

logic

Recorded





## Number System

- Introduction ✓
- Conversion ✓  $( )_2 \rightarrow ( )_5 \quad (101)_2 \rightarrow ( )_5$
- Arithmetic operations → +, \*, -, /
- Compliments
- Codes
  - BCD
  - $X-3$
  - Self Complementing Codes
  - Gray code
  - Alphanumeric codes
- Representation of Numbers in Computers
  - Integers
  - Real No.

H F F F



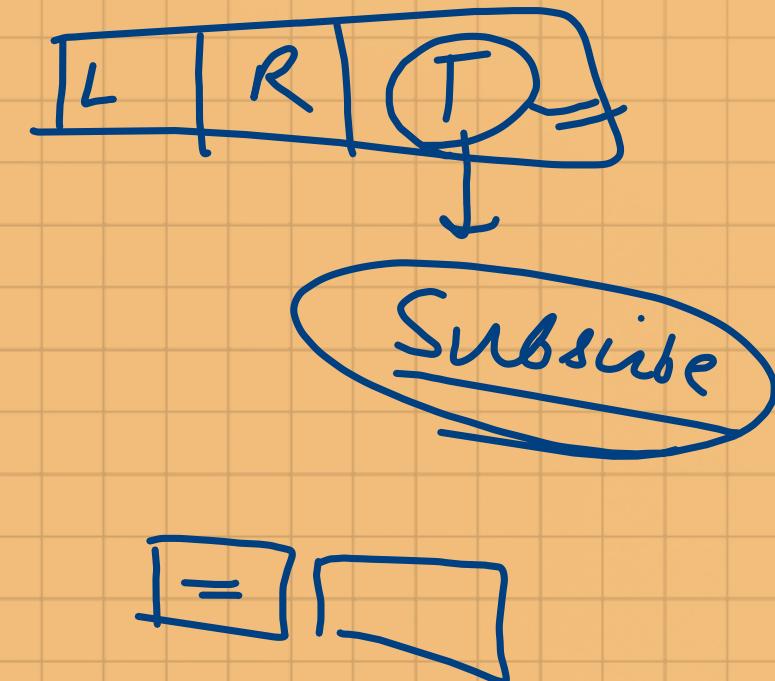
## Boolean Algebra

- Introduction
- Boolean Laws
- Logic Gates
- Principle of Duality
- 2 ways to represent Boolean Functions
  - SOP
  - POS
- Kmaps



## Combinatorial Circuits

- Introduction ≈
- BCD to X-3 Code Converter ≈
- Half adder -
- Full adder -
- BCD adder -
- Look ahead Carry adder A A A A A A
- Half Subtractor -
- Full Subtractor -
- Multiplexer (Mux) ↗
- Demultiplexer (DMux) ↘
- Encoders ≈
- Decoders ≈
- Rom ≈





## Sequential circuits ✓

- Introduction ✓
- Latch
- SR flip flop
- JK flip flop
- master slave flip flop
- Counters  $\Rightarrow A \times 2^n$
- Registers
- Booth's algorithm for multiplication

