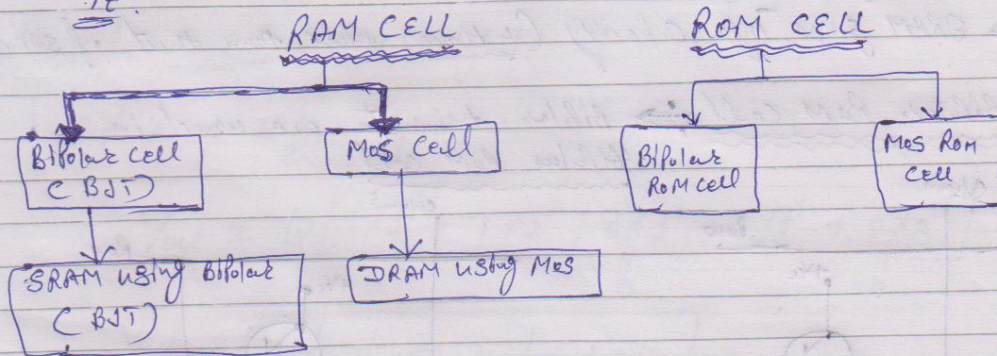
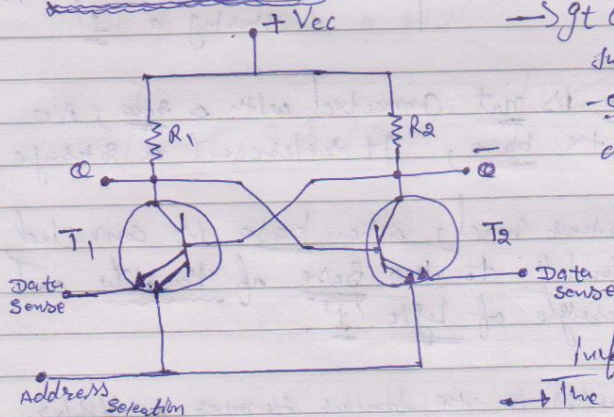


Memory Cell \Rightarrow is a device, which is used to store single bit of information or data (0 or 1).

Flop is an example of memory cell, when flip flop is set to store binary '1'. The output 'Q' of flip flop gives the data or information stored in it.



Bipolar SRAM Cell \Rightarrow

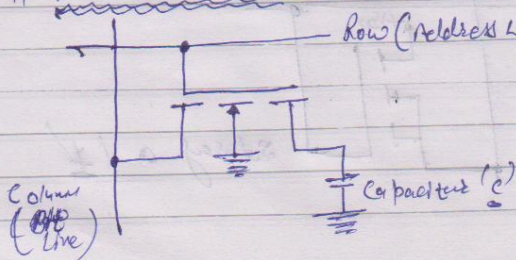


Bipolar SRAM Cell

\Rightarrow It consists with two BJT (Bipolar Junction Transistor) having emitter - emitters. When T_1 is ON, data sense is '1' and that time T_2 will be OFF, and data sense is 0.

\Rightarrow This gives two stable states to store data or information in form of bits. The emitters of T_1 and T_2 except data sense pins are connected together for addressing to active the cell.

MOS DRAM Cell \Rightarrow



\Rightarrow DRAM Cell consists with a single MOS transistor and a capacitor.

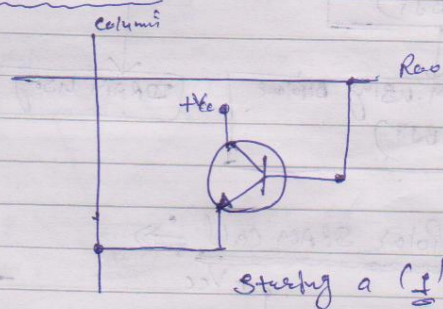
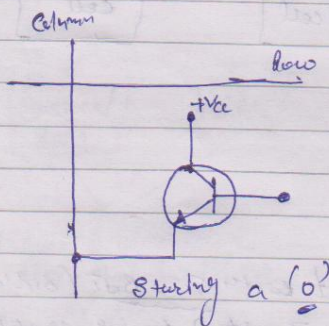
\Rightarrow The data is stored in MOS Capacitor 'C'. When 'C' is charged, the stored data is '1' and when 'C' is discharge the stored data is '0'.

→ when storage cell is selected by Row (Address line), the MOS conduct and charges the capacitor 'C', then it store '1'.

Similarly when address line goes low, the MOS off and capacitor 'C' discharge, then it store '0'.

→ DRAM gives high capacity (4 times more than that of SRAM).

Bipolar ROM cell ⇒ Bipolar transistors are used in Bipolar ROM cell.



⇒ when base of transistor is not connected with a row, no current flows to the base, it represent a storage logic '0'.

on the other hand, when base is connected, the current start flowing to the base of transistor and it represents a storage of logic '1'.

MOS ROM cell ⇒ It works in the similar manner as bipolar ROM cell. If gate is connected with row, it store '1', and if the connection is absent, it stores logic '0'.

