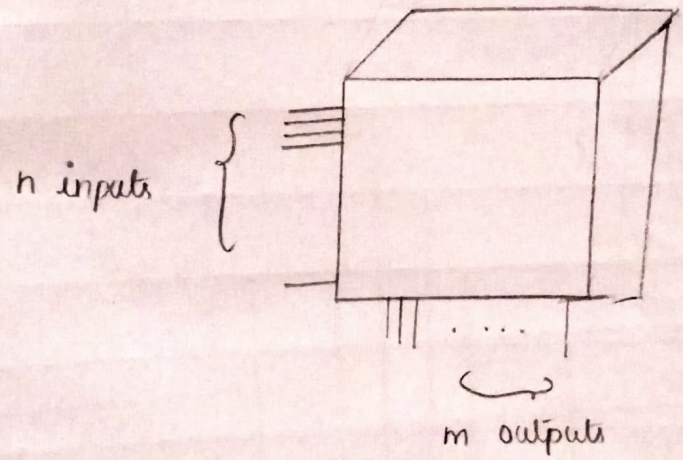
Encoder:

* An encoder converts an active input signals into a coded output signal.

* There are n input lines, only one of which is active.

* Internal logic within the encoder converts this active input to a coded binary output with m bits.



Decimal to BCD Encoder

* It is a common type of encoder. the decimal-to-BCD encoder. The switches are push-button switches likes those of a pocket calculator.

* when button 3 is pressed, the C and D OR Gate have high inputs, therefore, the output is

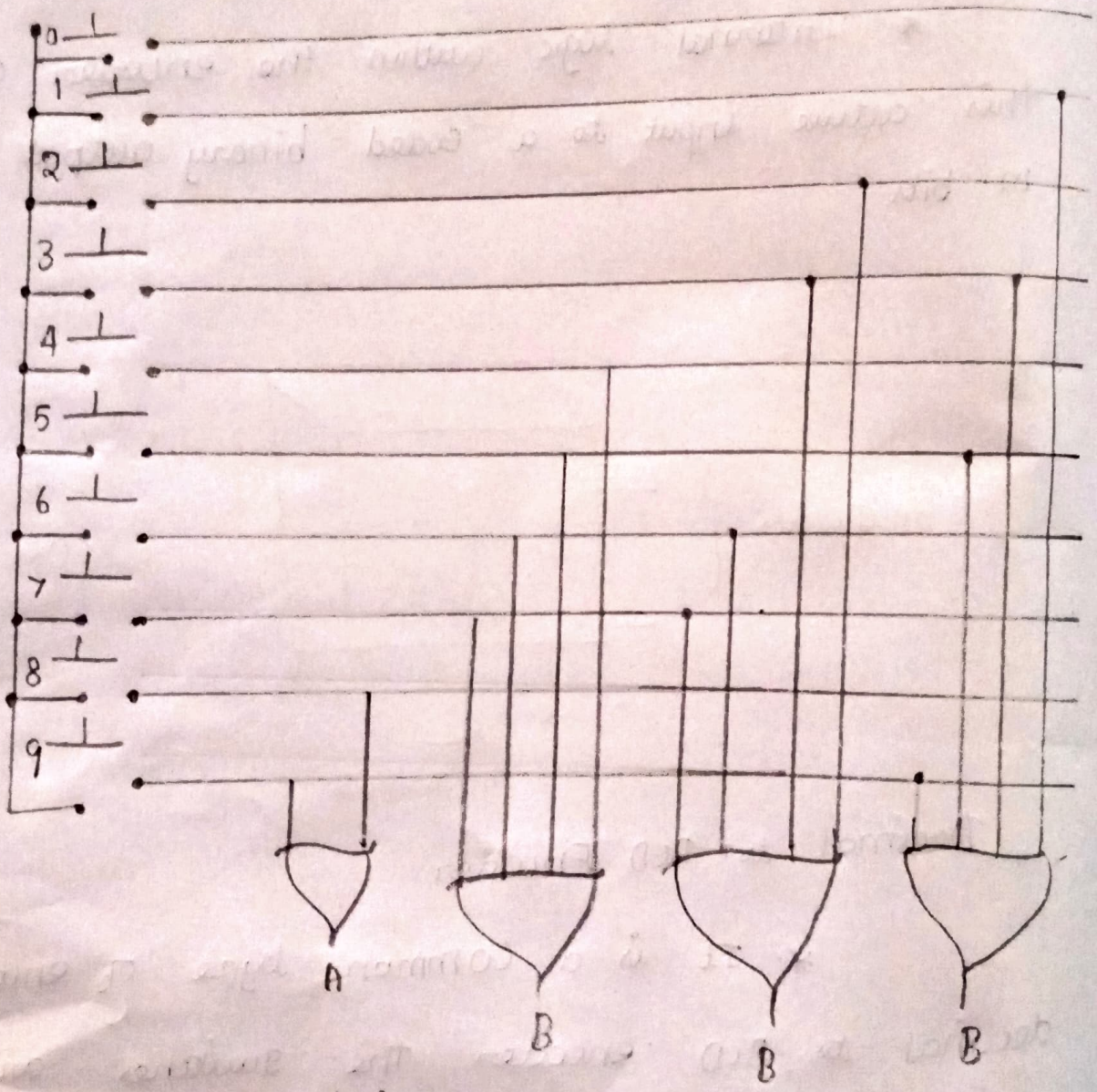
ABCD = 0011

If button 5 is Pressed, the outcome is

ABCD = 0101

when switch 9 is Pressed,

ABCD = 1001



Decimal to - BCD Encoder