



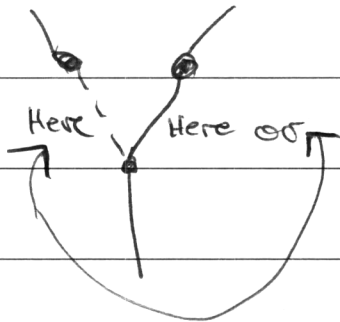
Question 25

(a)(i) as a decimal

(ii) AB

(iii) 011

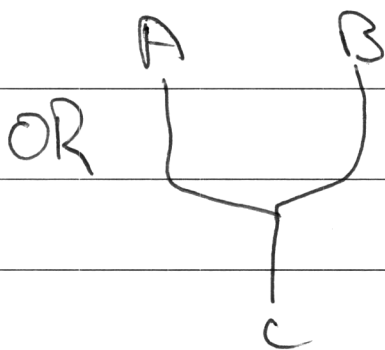
b)(i) a Flip-flop is like a two way gate



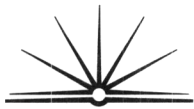
(ii)

A	B	output
0	0	0
1	0	0
0	1	0
1	1	1

AND



if A and $B = 1$
Then C will = 1



(c) The data stream sent from the scanner to the central computer will be long and complex. It will contain header information (so that the central computer knows what it is) data characters (the info about the fingerprint) and trailer info (so that the central computer knows that it is the end of transmission).

The data stream to the door from the central computer will be very ~~simple~~ simple. It will be either open or close but will still contain header and trailer info.