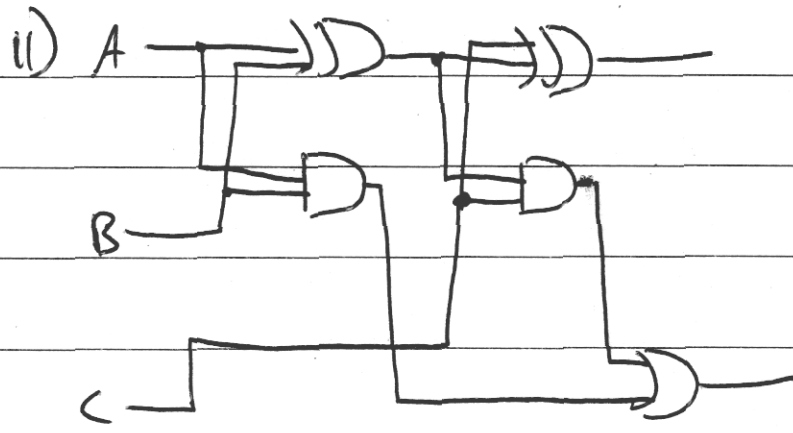
Question 25

25. a) i)

Input		Output	
A	B	C	S
1	1	1	0
1	0	0	1
0	1	0	1
0	0	0	0

ii)



- One half adder adds 2 bits and leaves a sum and carrier, a full adder involves 2 half adders with the second half adder adding another 2 bits and the carry of the previous half adder.

b) an integer for example 12.25 would look like 1100.01 in floating point form, the difference between integer representation and floating point representation of numbers is that floating point is in binary form while integer is in numeric form. In a calculator for example, the appropriate representation of numbers when we type is in integer but the calculator reads the number and floating point form which is the appropriate form for computerised process calculations.

c) i) [redacted] right 13mm, up 15mm

[redacted]

Direction x= right w/movements (6+5+2) y= up w/movements (7+5+2+1)

ii) 13 +15 = 28

$$13\overline{)28}\quad 2,\ 26,\ 2$$

2 remainder 2

iii) Begin