

Question 25.

$$0 + 0 = 0$$

$$1 + 0 = 1$$

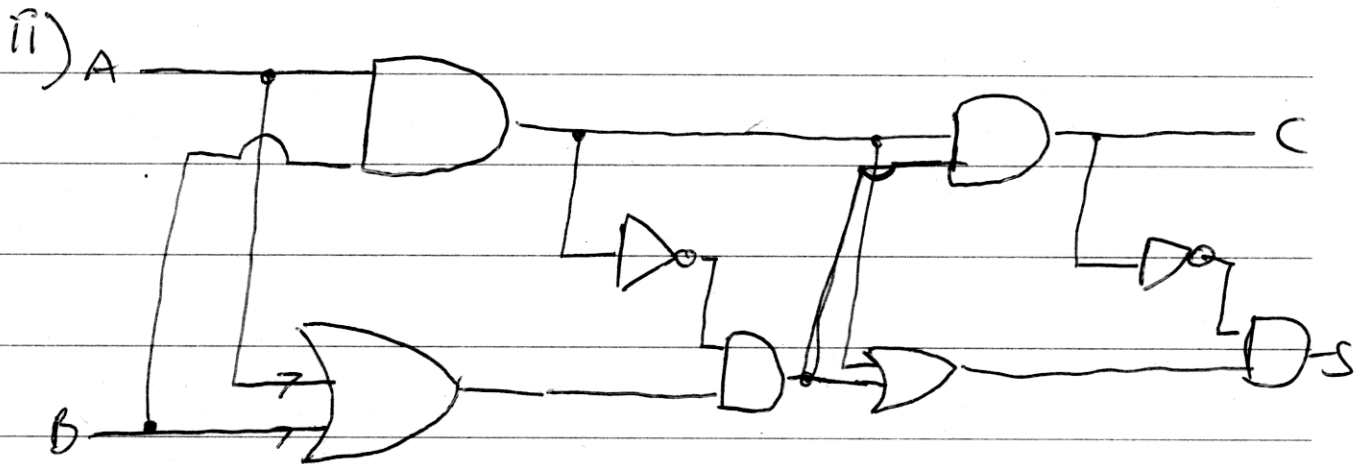
$$0 + 1 = 1$$

$$1 + 1 = 10$$

a) i) Input

Output

A	B	C	S
1	1	1	0
0	1	1	0
1	0	1	0
0	0	0	1



b) Integer representation is where the integer is represented as a whole number and the floating point is representation of decimals. Fixed decimal integer representation would be appropriate with binary ~~numbers~~ numbers.

while floating point would be useful for Hexadecimal and decimal

integer representation floating point

$$24 + 26 = 50$$

$$1 = 1$$

$$= 11000$$

$$10 = A$$

$$\begin{array}{r} 011010 \\ \hline 110010 \end{array}$$

$$\hline$$

c) i) 0101100101

$$357$$

$$0110100111$$

$$\begin{array}{r} 423 \\ \hline 780 \end{array}$$

$$\hline 1100001100$$

ii) $13 \overline{) 20} = 60$

remainder = 11100

iii) Begin

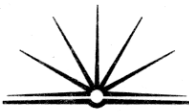
Initialise

Input

Process

Output

end.



~~Q3a~~

Begin

checksum = 1st packet + 2nd packet

checksum = 857 + 423

checksum = 780

If start $x = x_8, x_7, x_6, x_5, x_4, x_3, x_2, x_1$ stop x

= start $y = y_8, y_7, y_6, y_5, y_4, y_3, y_2, y_1$ stop y

Then checksum = correct

else checksum = false