

1) Convert the number from the last 4 digits of your Student ID, into the number bases below:

- a) Base 5
- b) Base 7
- c) Base 9

2) Convert the number from the last 4 digits of your Student ID **divided by 100, into** the binary.

3) Write the truth table for  $Y = (A \oplus B) \cdot (A + C)$ . **Hint:** Need to draw a table of A, B, C,  $A \oplus B$ ,  $A + C$  and Y.

A	B	C						Y
		0						
		1						
		0						
		1						
		0						
		1						
		0						
		1						

3) Draw the circuit for  $Y = (A \oplus B) \cdot (A + C)$ . **Hint:** Start drawing from the inputs of A, B and C on the left.

A ---

B ---

C ---

----- Y