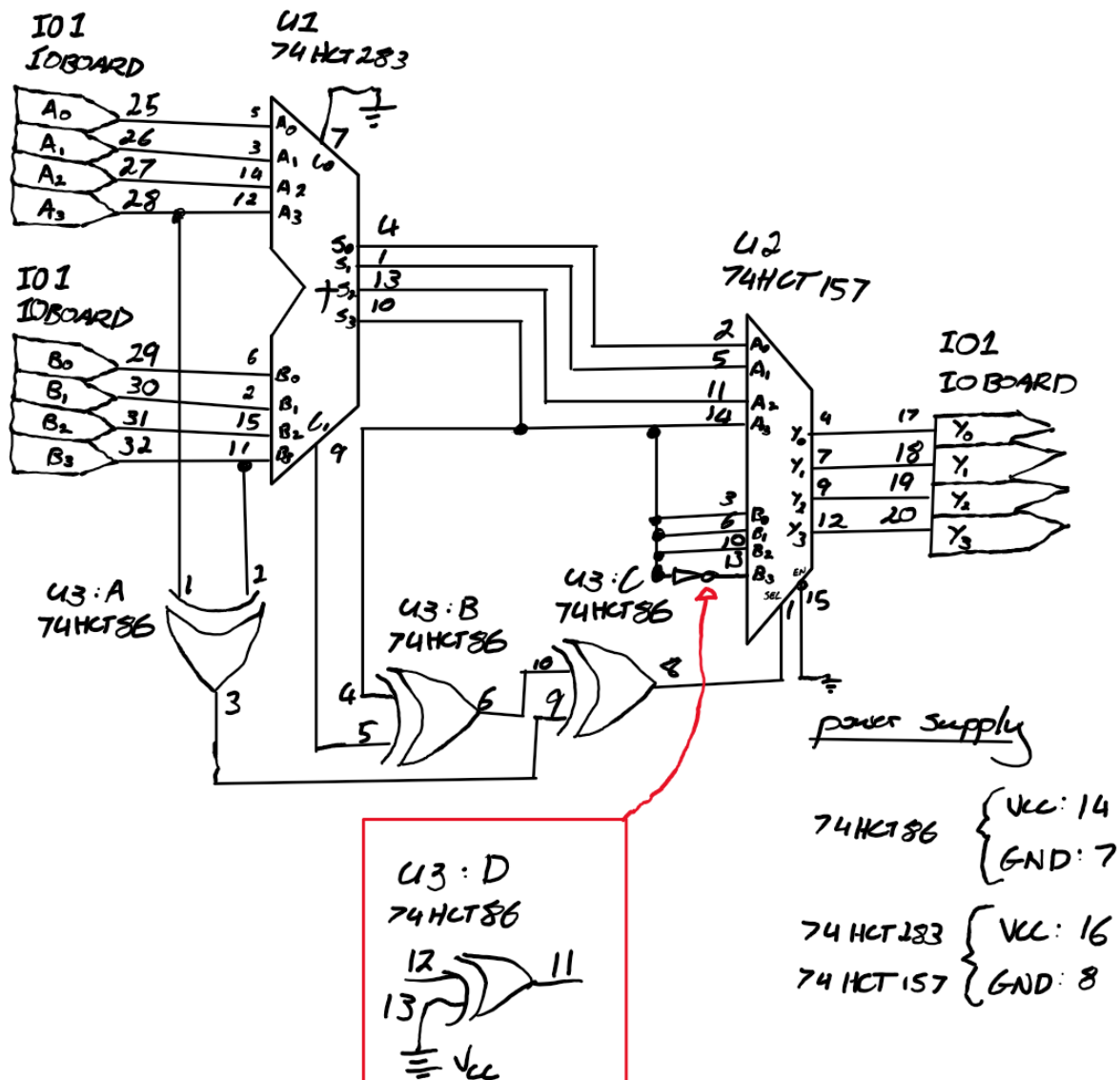


Part B - Functional Verification via Circuit Testing Task [8 Marks]



Note the XOR configuration $(A_3 \oplus B_3) \oplus (S_3 \oplus \text{Count})$

Given my student number 48030504

efgh = 0504

E = 0000 F = 0101 G = 0000 H = 0100

Test Case	$A_3 A_2 A_1 A_0$	$B_3 B_2 B_1 B_0$	$Y_3 Y_2 Y_1 Y_0$
1	0 1 1 1	0 0 1 1	0 1 1 1
2	1 0 1 1	1 1 0 0	1 0 0 0
3	0 0 0 0	0 1 0 1	0 1 0 1
4	0 0 0 0	0 1 0 0	0 1 0 0

Chips used (in order shown from left to right):

74HCT283, 74HCT86, 74HCT157

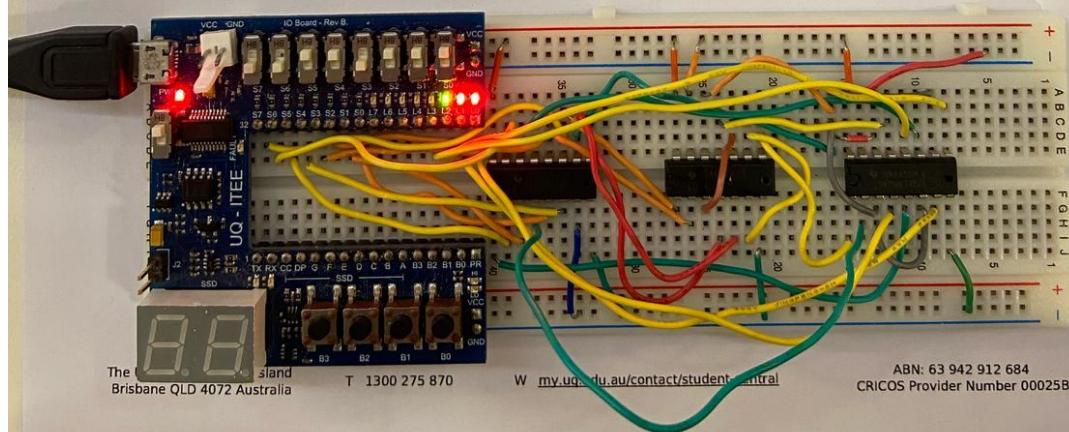
Test Case 1:

Temporary Examination ID



Name	Mr Samuel Peter Allpass (Samuel)
Student Number	48030504
Birth Date	16 Feb 2005
Program	
Course Code	CSSE2010
Date of Exam	15 Apr 2025
Time of Exam	12:00 PM

Course enrolment verified by **Isaac Peries** and temporary examination ID issued on **15 Apr 2025 at 10:09 AM**



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ABN: 63 942 912 684
CRICOS Provider Number 000258

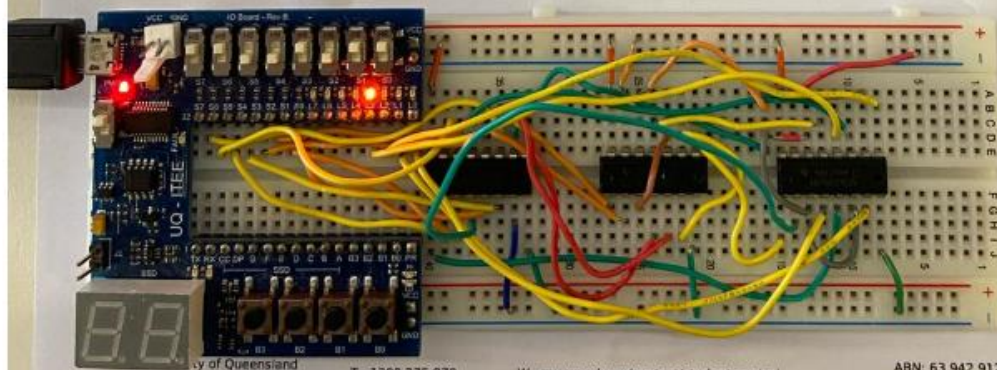
Test Case 2:

Temporary Examination ID



Name	Mr Samuel Peter Allpass (Samuel)
Student Number	48030504
Birth Date	16 Feb 2005
Program	
Course Code	CSSE2010
Date of Exam	15 Apr 2025
Time of Exam	12:00 PM

Course enrolment verified by **Isaac Peries** and temporary examination ID issued on **15 Apr 2025** at **10:09 AM**



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CRICOS Provider Number 000258

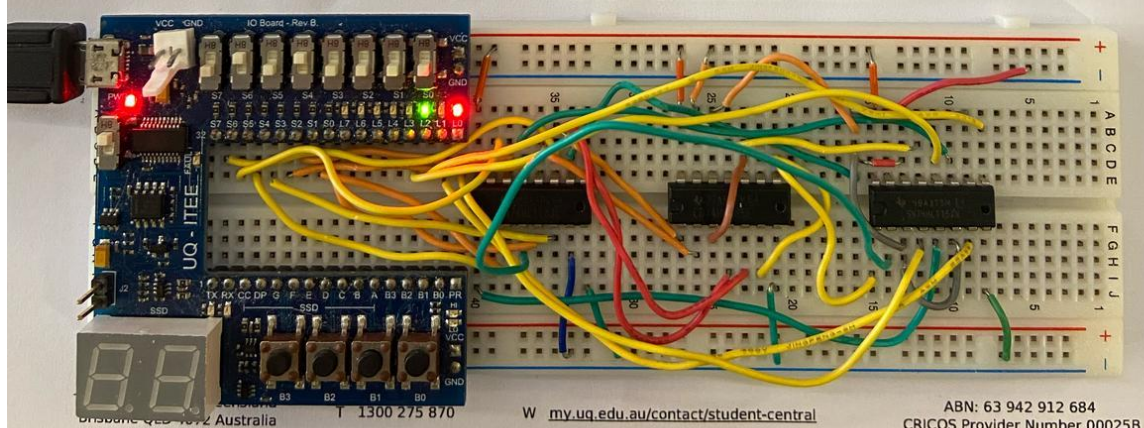
Test Case 3:

Temporary Examination ID



Name	Mr Samuel Peter Allpass (Samuel)
Student Number	48030504
Birth Date	16 Feb 2005
Program	
Course Code	CSSE2010
Date of Exam	15 Apr 2025
Time of Exam	12:00 PM

Course enrolment verified by **Isaac Peries** and temporary examination ID issued on **15 Apr 2025** at **10:09 AM**



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ABN: 63 942 912 684
CRICOS Provider Number 000258

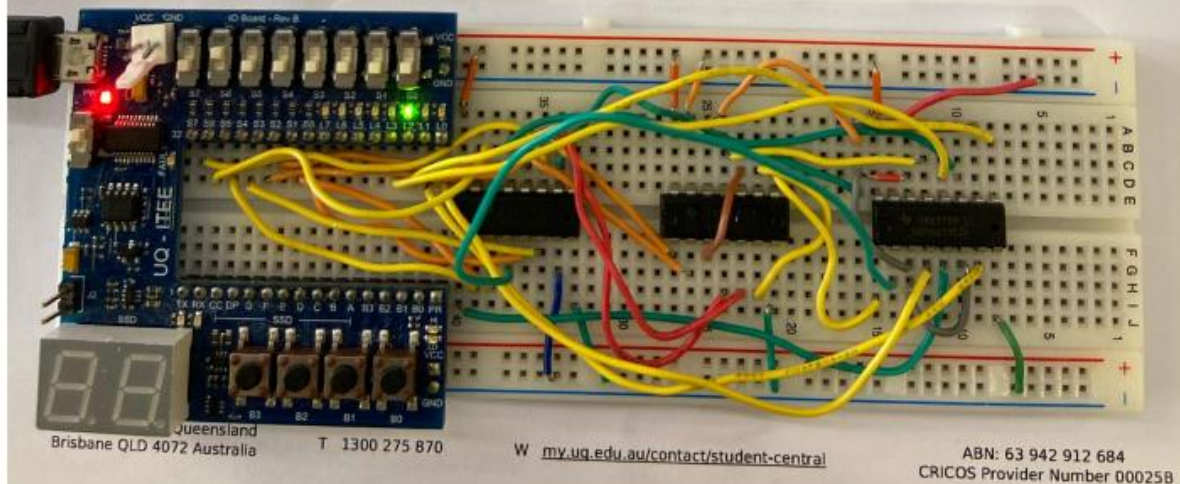
Test Case 4:

Temporary Examination ID



Name	Mr Samuel Peter Allpass (Samuel)
Student Number	48030504
Birth Date	16 Feb 2005
Program	
Course Code	CSSE2010
Date of Exam	15 Apr 2025
Time of Exam	12:00 PM

Course enrolment verified by **Isaac Peries** and temporary examination ID issued on **15 Apr 2025 at 10:09 AM**



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