

# Error Detection & Correction

1. Show whether the ID number 593845 is valid using the check digit. Show your working. (2)

Valid (y/n): \_\_\_\_\_

2. Show whether the ID number 251038 is valid using the check digit. Show your working. (2)

Valid (y/n): \_\_\_\_\_

3. Calculate the check digit for the ID number 79340. Show your working. (2)

Check Digit: \_\_\_\_\_

4. Calculate the check digit for the ID number 24182. Show your working. (2)

Check Digit: \_\_\_\_\_

5. Complete the table by showing each number with odd and even parity bits added. (4)

Number	Odd Parity	Even Parity
0100100		
1100110		
1110101		
0111010		

6. Complete the table by stating whether each number passes the parity check. (4)

Number	Parity	Pass?
01001011	Even	
01110100	Odd	
00010110	Even	
00101001	Odd	