HAMMING CODE EXERCISE

FIND WHAT bits each of p1 p2 p3 p4 will check. Find the Hamming Code

Now form a hamming code for 5-bit information bits 10110 with odd parity

m=5 and we have to follow 2p >= m + p + 1

The value of p as 4 to satisfy 24 (16) >= 5 + 4 + 1 but p=3 doesn't satisfy as

23 (8) >= 5 + 3 + 1

So p=4 and hence a total of 9 bits

Parity bit positions are 1, 2, 4, 8

And hence hamming code composition is as follow

0001	0010	0011	0100	0101	0110	0111	1000	1001
1	2	3	4	5	6	7	8	9
P1	P2	M1	P3	M2	M3	M4	P4	M5