Introduction to Coding Theory Assignment 1

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30/12/18

1 Q1

Such an encoding would be:
$00 \rightarrow 000000$
$01 \rightarrow 001111$
$11 \rightarrow 110011$
$10 \rightarrow 101101$

2 Q2

Such an encoding would be:
$00 \rightarrow 0000000$
$01 \rightarrow 0001111$
$11 \rightarrow 1100011$
$10 \rightarrow 1010101$

3 Q3

Such an encoding would be:
$000 \rightarrow 0000$
$001 \rightarrow 0011$
$011 \rightarrow 1111$
$111 \rightarrow 1100$
$110 \rightarrow 1001$
$100 \rightarrow 1010$
$010 \rightarrow 0101$
$101 \rightarrow 1001$

4 Q4

Such an encoding would be:

$000 \rightarrow 00000$

$001 \rightarrow 00111$

$011 \rightarrow 11110$

$111 \rightarrow 10011$

$110 \rightarrow 01001$

$100 \rightarrow 10101$

$010 \rightarrow 01010$

$101 \rightarrow 10010$