CP216 - Assignment 3CD

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3.10

ARM provides a reverse subtract because the ARMSIM treats operands unequally. Thus Sub = Ro - Value, whereas RSB = Value - Ro, and the registry is treated differently

3.11

R1 = 11110000 11100010 10100000 11111101
R2 = 00000000 11111111 00001111 00001111

BIC = R1 AND NOT R2

$\overline{R2}$ = 11111111 00000000 11110000 11110000

R3 = 11110000 00000000 10100000 11110000

3.12 R1 = $OFFF_{16}$ R2 = 4, OFFF = 0000 1111 1111 1111
FOOO = 1111 0000 0000 000

a) 1111 1111 1111 0000
b) 0000 0000 1111 1111
c) 0000 0000 00000000
d) 0000 1111 0000 0000

3.13 R1 = $OOFF_{16}$ R2 = 4 OOFF = 0000 0000 1111 1111

a) 1111111000
b) 1111100000
c) 1110 11111

3,14 MOV r0, r0, ASR #31

It divides the contents of R0 by 2^{31}.

3,18 11111100000000000000000000

BIC R0, R0 #