

Topic 4 and 5 – Binary conversion and Arithmetic (Due end of Week 5)

Binary Assignment 1 (20 Marks)

Show your working out

1. Convert the following to Base 2 based on their respective bases (6 Marks)

a. $68\frac{5}{8}$ Base 10

b. 724_8

c. $D9B4_{16}$

2. Convert from Base 2 to the respective bases (6 Marks)

a. 1011011011 to base 10

b. 111010101110 to base 8

c. 1111010001101110 to base 16

3. Calculate the following (8 Marks)

a. $10111101_2 + 111101_2$

b. $1101110_2 - 110110_2$

c. $1101110_2 \div 1111_2$

d. $11111_2 \times 10101_2$