



CSE Department, North South University
ETE131: Introduction to Telecommunications
& Computer Engineering (SyR)
Problem Sheet 1: Number Systems - Solutions

Q1. Convert the decimal number 158 into

- a) Binary b) Octal c) Hexadecimal

Ans: a) 10011110_2 b) 236_8 c) $9E_{16}$

Q2. Convert the decimal number 100 into

- a) Binary b) Octal c) Hexadecimal

Ans: a) 1100100_2 b) 144_8 c) 64_{16}

Q3. Find the decimal values of the following numbers

- a) 553_8 b) 100_{16} c) 100111_2
d) $ABCDE_{16}$ e) 1010_{10} f) 431_8

Ans: a) 363 b) 256 c) 39
d) 43981 e) 1010 f) 281

Q4. If $X = 950D_{16}$ and $Y = B64_{16}$, find the value of $X+Y$

Ans: $A071_{16}$

Q5. If $A = 26712_8$ and $B = 6037_8$, find the value of $A+B$

Ans: 34751_8

Q6. If $C = 1001111_2$ and $D = 101101_2$, find the value of $C+D$

Ans: 1111100_2