

CS1356 Introduction to Information Engineering

Homework 1

- Express the following bit patterns in hexadecimal notation.
 - 101010101010
 - 110010110111
 - 000011101011
- Write the number 26 by
 - ASCII representation (you can find a table at <http://www.asciitable.com/>)
 - Binary representation
- Convert each of the following binary representation to its base ten representation
 - 111
 - 0001
 - 10101
 - 10001
 - 10011
 - 000000
 - 100
 - 1000
 - 10000
 - 11001
 - 11010
 - 11011
- Convert each of the following base ten representation to its binary representation
 - 7
 - 11
 - 16
 - 15
 - 33
- Performing the following addition
 - $$\begin{array}{r} 00101 \\ +01000 \\ \hline \end{array}$$
 - $$\begin{array}{r} 11111 \\ +00001 \\ \hline \end{array}$$
 - $$\begin{array}{r} 01111 \\ +00001 \\ \hline \end{array}$$
 - $$\begin{array}{r} 10111 \\ +11010 \\ \hline \end{array}$$
 - $$\begin{array}{r} 00111 \\ +00111 \\ \hline \end{array}$$
 - $$\begin{array}{r} 00111 \\ +01100 \\ \hline \end{array}$$
 - $$\begin{array}{r} 11111 \\ +11111 \\ \hline \end{array}$$
 - $$\begin{array}{r} 01010 \\ +00011 \\ \hline \end{array}$$
 - $$\begin{array}{r} 01000 \\ +01000 \\ \hline \end{array}$$
 - $$\begin{array}{r} 01010 \\ +10101 \\ \hline \end{array}$$

Answers will be posted on website by Friday.