## Due Date:

At the end of your scheduled lab period.

## Purpose:

Demonstrate successful eight-bit binary to Unicode translation.

## Procedure:

You will need to download the Unicode controls and character tables from Blackboard to complete this lab assignment.

Step 1. Each question has a string of binary numbers. Separate the string into eight-bit binary numbers.

Step 2. Once separated, translate each eight-bit binary number into hexadecimal digits.

Step 3. Once translated, look up the hexadecimal digits in the 8-bit Unicode table (PDF file). The first hexadecimal digit represents the **column** number and the second digit represents the **row** number.

Step 4. Write down the Unicode letter in the translation area.

Note: Show this lab to your lab instructor in class

Answers should be in RED

**Example**

One of the many nicknames for MacDonald’s food.

**Binary String:** 010001110110111101101100011001000110010101101110001000000100000101110010011000110110100001100101011100110010000001000110011011110110111101100100

**Binary String (separated)**

01000111 01101111 01101100 01100100 01100101 01101110 00100000 01000001 01110010 01100011 01101000 01100101 01110011 00100000 01000110 01101111 01101111 01100100

Hexadecimal Digits **47 6F 6C 64 65 6E 20 41 72 63 68 65 73 20 46 6F 6F 64**

**Translation: Golden Arches Food**

1. Programming students often write this program as an introduction to coding.

**Binary String:**

**01001000 01100101 01101100 01101100 01101111 00100000 01010111 01101111 01110010 01101100 01100100 00100001 00001010**

**Hexadecimal numbers: 48 65 6C 6C 6F 20 57 6F 72 6C 64 21 A**

**Translation: Hello World!**

1. Eddie Murphy played this character.

**Binary String:**

**01000100 01110010 00101110 00100000 01000100 01101111 01101100 01101001 01110100 01110100 01101100 01100101**

**Hexadecimal numbers: 44 72 2E 20 44 6F 6C 69 74 74 6C 65**

**Translation: Dr. Dolittle**

1. One of Canada’s National Parks.

**Binary String:**

**01001110 01100001 01101101 01100101 00100000 01000011 01100001 01101110 01100001 01100100 01100001 00100111 01110011 00100000 01101111 01101100 01100100 01100101 01110011 01110100 00100000 01001110 01100001 01110100 01101001 01101111 01101110 01100001 01101100 00100000 01010000 01100001 01110010 01101011 00101110**

**Hexadecimal numbers: 4E 61 6D 65 20 43 61 6E 61 64 61 27 73 20**

**6F 6C 64 65 73 74 20 4E 61 74 69 6F 6E 61**

**6C 20 50 61 72 6B 2E**

**Translation: Name Canada's oldest National Park. (Banff National Park)**