

# CSS 422: Hardware and Computer Organization

## Exercise 1

Name: \_\_\_\_\_

### Q1. Decimal to any base number system:

- 1) Convert 68,456 (decimal) to the number with base 17

Ex)  $73,503_{10} \rightarrow EG5C_{17}$

- 2) Convert the number 436<sub>9</sub> (base 9) to decimal

### Q2. Decimal and Binary:

- 1) Convert the following decimal to binary

64,200

- 2) Convert the following binary to decimal

011001100001101

### **Q3. Binary and Octal:**

**1) Convert the following Binary to Octal**

**Ex) 11000001011111011 → 301373**

**0101101011110011**

**2) Convert the following Octal to Binary**

**Ex) 301373 → 11000001011111011**

**73503**

### **Q4. Binary and Hex:**

**1) Convert the following Binary to Hex**

**Ex) 11000001011111011 → 182FB**

**110101101011110011**

**2) Convert the following Hex to Binary**

**Ex) 182FB → 11000001011111011**

**A301F1**