



Name:

Date:

Section:

Grade:

## 1.0 Problem Set #1 - Number Systems Representation, Conversion, and Arithmetic Operations

1.1 Instruction: Complete the table below (Do not forget to write the letter suffix for each number system) [30 pts]:

Binary	Octal	Decimal	Hexadecimal
		<b>947d</b>	<b>3B3h</b>
<b>1011 0101b</b>			
			<b>101h</b>
<b>1110 0111b</b>	<b>347o</b>		

1.2 Instruction: Perform the following operations in the specified number system [60 pts]:

### 1.2.1 Binary Operation

(1) <b>101101 + 100110 + 111101 + 100001</b>	<b>=</b>	
(2) <b>1 1100 1011 - 1101 0111</b>	<b>=</b>	
(3) <b>10 1011 × 101</b>	<b>=</b>	
(4) <b>10 0110 1101 ÷ 1001</b>	<b>=</b>	

### 1.2.2 Octal Operation

(5) <b>7407 + 1676 + 1036</b>	<b>=</b>	
(6) <b>6203 - 5677</b>	<b>=</b>	
(7) <b>352 × 224</b>	<b>=</b>	
(8) <b>2355 ÷ 16</b>	<b>=</b>	

### 1.2.3 Hexadecimal Operation

(9) <b>2ACE + FEED + 404</b>	<b>=</b>	
(10) <b>7 6DAE - 8EFF</b>	<b>=</b>	
(11) <b>FADE × 34</b>	<b>=</b>	
(12) <b>DA45 / 2D</b>	<b>=</b>	