Name:

Date:

Class: CS 160

Assignment #2

1) Convert the following binary numbers to decimal. (Four Points)

1. 101101102 =
2. 000001002 =
3. 000010002 =
4. 001010002 =
5. 100000102 =
6. 001011112 =
7. 111111002 =
8. 000000012 =

2) Convert the following decimal numbers to binary (use 8 place holders; ex: 00000000 or 11111111). (Four Points)

1. 310 =
2. 1810 =
3. 12810 =
4. 11410 =
5. 5110 =
6. 010 =
7. 1210 =
8. 24210 =

3) Rotate the following binary numbers. (Four Points)

1. 01102 right(2) =
2. 11012 right(1) =
3. 10112 right(1) =
4. 00102 right(3) =
5. 11012 left(2) =
6. 00102 left(3) =
7. 01012 left(1) =
8. 00012 left(1) =

4) Shift the following binary numbers. (Four Points)

1. 01102 left(2) =
2. 11102 left(1) =
3. 00012 left(1) =
4. 10102 left(2) =
5. 11112 right(2) =
6. 11002 right(1) =
7. 10102 right(2) =
8. 00012 right(3) =

5) Add the following 4-bit binary numbers. (Four Points)

1. 00112 + 00012 =
2. 00012 + 00012 =
3. 01002 + 00102 =
4. 00112 + 10102 =
5. 01112 + 00012 =
6. 10012 + 00112 =
7. 00012 + 11102 =
8. 01012 + 00012 =