1. **Convert:**

1.1. 515.0625(10) ­­→ ? (16) – 203.1

→? (2) – 001000000011.0001

→? (2/10) – 010100010101.0000011000100101

→? (8) – 1003.04

1.2. 776.1(8) ­­→ ? (16) – 1FE.2

­­ → ? (3) – 200220.0101010101…

­ → ? (2/10) – 010100010000.00010101

1.3. 1001010110.00100101 (2/10) → ? (16) – 100.4

­­ → ? (8) – 400.2

**2. Binary Arithmetic**

2.1. Addition 11100001 + 11100011 + 1111111 + 0011111

=1000100010

01111010+10101111 + 0011111

=101001000

* 1. Multiplication 1100011 \*1011

=10001011001

1010100\*0111

=1001001100

* 1. Division 1100101/1001

=1011 Remainder 10

10000111/1101

=101 Remainder 1

* 1. Subtraction 1000111 – 1111 – 1011

=101101

10101010- 01011111

=1001011

1. **Fill In**

#### Fill in using scientific notation:

*1 Gbyte( giga)* memory is ………………………… 1 \* 2^30 Bytes

1 *GHz(giga) is*  …………………………. 1 \* 10^9Hz

1 *KHz(kilo) is*  …………………………. 1 \* 10^3Hz

5 *Ti(tebi) is*  …………………………. 5 \* 2^40

*1 Mi* (mebi) is ………………………….1 \* 2^20

*1 psec*(pico)is ………………………….1 \* 10^-12

*1 μsec* (micro)is ………………………….1 \* 10^-6

*1 nsec*(nano)is ………………………….1 \* 10^-9

*1 msec* (mili)is …………………………. 1 \* 10^-3