De La Salle University
College of Computer Studies

CCICOMP Practice Exercise – Number Systems Arithmetic

Name: MARQUESES, LORENZ BERNARD B.   Date: 10/26/23

Section: S13   Grade:

2.0 Arithmetic

2.1 Instruction: Perform arithmetic operations on the following **Binary numbers**.

```
  10 1010        1 111          11  111         11  111
+  1 0101        10 1011        11 0101         11 1001
-----------    +     101      +    1011       +    1111
  11 1111      -----------    -----------     -----------
                 11 0000       100 0000        100 1000
```

```
                 2              01 2012         01 1112
  11 0101        10 1101        10 0100         10 0000
-  1 0101      -  1 1001      -    1001       -  1 1011
-----------    -----------    -----------     -----------
  10 0000         1 0100         1 1011             101
```

```
  10 1101         1 0011         1 0101          1 0011
×      11      ×     101      ×    1010       ×    1101
-----------    -----------    -----------     -----------
  10 1101         1 0011         1 0101          1 0011
+ 101 101      + 100 11       + 1010 1000       100 11
-----------    -----------    -----------     + 100 11
 1000 0111      101 1111       1011 1101      -----------
                                               1111 0111
```

```
 r. 0            r. 1            r. 1             r. 1
  1 0010          1 0010            111             1010
11 | 11 0110   101 | 101 1011  1100 | 101 0101  1011 | 110 1111
-  11          -  101          -  1100          -  1011
   ----           ----            ----             ----
   00             01              10 010           1011
-   0          -   0           -  1100          -  1011
   ----           ----            ----             ----
   01          r  10           r  01101         r  01
    0              0              1100              0
   ---           ----            -----             ---
   11             101              1                1
   11             101
   ---           ----
   00              01
    0               0
                  ----
                  r. 1
```

2.2 Instruction: Perform arithmetic operations on the following **Octal numbers**.

2645 + 5702 = 10547	7 6543 + 1335 = 100100	2 2241 − 1340 = 2 0701	23 4526 − 3 5617 = 17 6707

323 × 24 = 1514 + 646 = 10174	717 × 1154 = 3474 + 4413 + 717 = 141524	95 remainder 0	302 remainder 5

2.3 Instruction: Perform arithmetic operations on the following **Hexadecimal numbers**.

A384 + B675 = 159F9	2 D5A9 + 3457 = 30A00	AB C123 − 5 D032 = A5 F0F1	B A4C5 − 4 BEEF = 6 E5D6

9F × 11A = 636 + 9F + 1026	36A × .123 = 2A3E + 6D4 + 36A + 3E17E	35 remainder 0	7C remainder 14