**Computer Organization and Assembly Language**

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| **Lab 05** | |
| **Topic** | * Arithmetic & Logical instructions * Selective bit setting/clearing/complimenting * Shifting and Rotations variations * Extended addition and subtraction |

**Part 2**

**Problem #1:**

**Let Ax=0xABCD;**

Set 2nd,5th,8th, 14th of ax.

then invert 1st , 5th, 9th, 10th and 14thbit of ax.

then clear the L.S.B and M.S.Bbit of ax.

**Problem #2:**

Write an assembly language program to count the number of ones in register ax. Let value in ax is 0xCD45

solution:

count: db 8

**Problem #3:** Declare a byte type array of 10 element then write a program to count odd numbers in array and store count in a variable “count”. Implement this problem **without updating** the actual values of the array elements.

Note: use logical operations….

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| Index | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Value | 0xAB | 0x7E | 0xAB | 0xED | 0x4B | 0x44 | 0xAA | 0xCC | 0x12 | 0xEE |

Count should be 4