**Subject: PRF192- PFC**

**Workshop 04**

**Part 1: Use notebook**

**Exercise 1:**

1. Pn=&n;-> address of n, pm=&m -> address of m.

\*pn= value of n=7, \*pm=value of m=6.

\*pn=\*pm +2\*m-3\*n ⬄ n=m+2\*m-3\*n = 6+2\*6-3\*7=-3.

\*pm -= \*pn ⬄ m=m-n ⬄m=6-(-3)=9 => m+n=9+(-3)=6 (decimal).

1. P1=&c1;-> address of c1, p2=&c2 -> address of c2.

\*p1= value of c1=A, \*p2=value of c2=F.

\*p1+=3 ⬄c1=c1+3 =A +3=D.

\*p2 -= 5 ⬄\*p2=\*p2-5 ⬄c2=c2-5 =F-5=A. => c1-c2=D-A=3 (decimal3=hexadecimal3).

1. P1=&x;-> address of x, p2=&y -> address of y.

\*p1= value of x=3.2, \*p2=value of y=5.1.

\*p1+=3 -2\*(\*p2)⬄x=x+3-2\*y =3.2+3-2\*5.1=-4.

\*p2 -= 3\*(\*p1) ⬄y=y-3\*c1 =5.1-3\*(-4)=17.1. => x+y=(-4)+17.1=13.1 (decimal).

**Exercise 2:**

1. P1=&n;-> address of n, p2=&m -> address of m.

\*p1= value of n=7, \*p2=value of m=8.

\*p1+=12-m+(\*p2)⬄n=n+12-m+m=7+12=19.

\*p2 =m+n-2\*(\*p1) ⬄m=m+n-2\*n =8+19-2\*19=-11. => m+n=-11+19=8 (decimal).

1. Because of using explicit casting from int to char while \*pp=0; lowest byte is copied first then highest byte that’s why original n=260 has turned into n=256.

**Exercise 3:**

1. L=t(b,a,c)=(2\*6+3\*7+5\*5)%13=6.
2. T=(&a,&b){t=a;a=b;b=t;}=>a=6,b=7
3. C=T(&a,&b){t=3+4<12 =>t=6 return (6\*2)%5=2 => c=2.