**Subject: PRF192- PFC**

**Workshop 04**

**Part 1: Use notebook**

**Exercise 1** (1 mark) : Explain outputs:



\*pn = \*pm + 2\*m – 3\*n

🡪 n = \*pn = 6 + 2\*6 – 3\*7 = -3

\*pm -= \*pn

🡪 m = \*pm = 6 – (-3) = 9

* Output: m + n 🡪 6



\*p1 += 3

🡪 c1 = \*p1 = ‘A’ + 3 = ‘D’

\*p2 -= 5

🡪 c2 = \*p2 = ‘F’ – 5 = ‘A’

🡺 Output: c1 – c2 (%d) 🡪 3



\*p1 += 3 – 2\*(\*p2)

🡪 x = \*p1 = x + 3 – 2\*y = 3.2 + 3 – 2\*5.1 = -4

\*p2 -= 3\*(\*p1)

🡪 y = \*p2 = y – 3\*x = 5.1 – 3\*(-4) = 17.1

🡺 Output: x + y 🡪 13.100000

**Exercise 2: (1 marks) What are outputs**

int n=7,m=8;

int\* p1= &n, \*p2=&m;

\*p1 +=12-m+ (\*p2);

\*p2 = m + n- 2\*(\*p1);

printf(“%d”, m+n);

What is the output?

\*p1 += 12 – 3 + (\*p2)

🡪 n = \*p1 = n + 12 – m + n = 7 + 12 – 8 + 7 = 18

\*p2 = m + n – 2\*(\*p1)

🡪 m = \*p2 = m + n – 2n = 8 + 18 – 2\*18 = -10

🡺 Output: m + n 🡪 8

int n=7,m=8;

int\* p1= &n, \*p2=&m;

\*p1 +=12-m+ (\*p2);

\*p2 = m + n- 2\*(\*p1);

printf(“%d”, m+n);

What is the output?

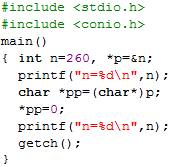
\*p1 += 12 – 3 + (\*p2)

🡪 n = \*p1 = n + 12 – m + n = 7 + 12 – 8 + 7 = 18

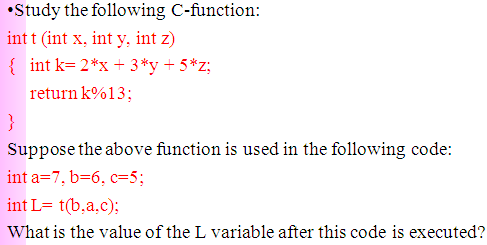
\*p2 = m + n – 2\*(\*p1)

🡪 m = \*p2 = m + n – 2n = 8 + 18 – 2\*18 = -10

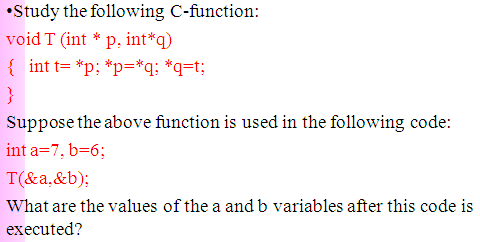
🡺 Output: m + n 🡪 8



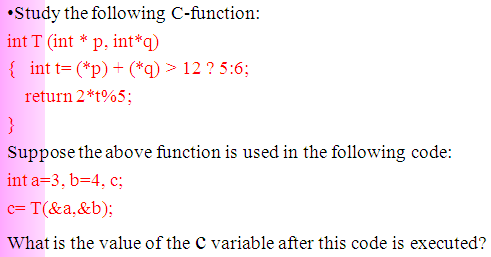
**Exercise 3: (2 marks) Walkthroughs**







|  |  |
| --- | --- |
| T  a = 6  b = 7 | t = 7  \*p = \*q = 6  \*q = 7 |



|  |  |
| --- | --- |
| T | \*p = a = 3  \*q = b = 4  (\*p) + (\*q) = 7 < 12 🡪 t = 6  🡪 return: |