Day - 66

Double Pointer

⇒ Suppose if we want to ~~creat~~ store the
address of a pointer —

int n = 10;
int *p = &n;
int **ptn = &p;

⌐→

$$100 \nearrow \boxed{10}$$
n   100

$$\nearrow \quad p \quad 200$$

$$\boxed{200}$$
ptn

=] Ptn is a pointer that points to a pointer
that points to a int value.

=] Also, we can create Triple Pointer —
int *** p1 = & ptn;

⇒ 　　*p =　　*p + 4;
　　*p　=　　10 + 4 = 14
　　　　⌐→ dereference operator

⇒ Triple Pointer:

$$\boxed{10}$$
10

$$\boxed{100} \nearrow$$
n 100

$$\nearrow \boxed{200} \nearrow$$
p1 200

$$\nearrow \boxed{300}$$
p2 300   int *p1

$$\boxed{300}$$
p3 400   int ** p2
int *** p3
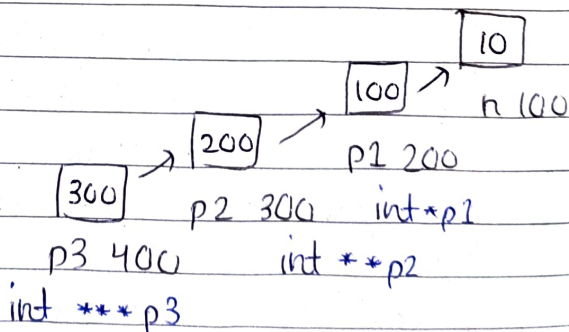
* <u>Questions</u>

1.
```
int main() {
    char c[] = "GATE 2024";
    char *p = c;
    cout << p + P[3] - P[1];
}
```
        Add. + 'E' - 'A'   (difference of
=) (suppose) 100 + 4 = 104   ASCII values)
    So, the o/p is —
                2024

2.
```
void second (int *pl, int *p2)
{   pl = p2;   *pl = 2; }
int main () {
    int i=0, j=1; second (&i, &j);
    cout << i << j;
}
```
=)   0 2

3.
```
int *ptr;      int x = 0;
ptr = &x;      int y = *ptr;
*ptr = 1;
cout << x << y;
```
=)   1 0

4.
```
int a = 5, b = 10; int & name = a; int *ptr = &a;
(*ptr)++;   ptr = &b;   *ptr = *ptr + 5;
name += 5;          cout << a << b;
```
=)   11 15

5.
```
int foun( int x, int * py, int ** ppz){
    int y, z;
    ** ppz += 1 ;  z = ** ppz;
    * py += 2;    y = * py;   x += 3;
    return  x + y + z ;
} int  c,  *b,  **a
  c = 4,  b = & c,  a = & b;
  cout << foun (c, b, a);
```
=)   19

6.
```
void five( char *str1, char * str2){
    while (( *str1 = * str2)){
        str1++, str2++;
    }
} int main(){
    char first [] = "Mohit";
    char second [] = "Rohan";
    five (first, second);
    cout << first;
}
```
=)   Rohan