Pointers Practical Exercises

Answers Predict

Output #1:

Value of 'V'	Address of variable 'V'
Address of variable 'V' or value of pointer 'ptr2'	Address of pointer 'ptr2'
Base address of array 'Arr1' or address of 'Arr1[0]'	Base address of array 'Arr1'
Base address of array 'Arr1[2]'	Address of pointer 'ptr1'
Value of 'V'	Address of variable 'V'
Address of variable 'V' or value of pointer 'ptr2'	Address of pointer 'ptr2'
Base address of array 'Arr1' or address of 'Arr1[0]'	Base address of array 'Arr1'
Base address of array 'Arr2' or address of 'Arr2[0]'	Address of pointer 'ptr1'

Predict Output #2

58 58 58

Predict Output #2

K=4 x=950

y=3000

k=14 k=28

Predict Output #4

Lines	Values			
	i	j	ptr	pptr

4	5	10	0x37129	unknown
5	5	10	0x37129	0x1dc825
6	3	10	0x37129	0x1dc825
7	7	10	0x37129	0x1dc825
8	7	10	0x5893a	0x1dc825
9	7	9	0x5893a	0x1dc825
10	7	9	0x5893a	0x1dc825
11	-2	9	0x5893a	0x1dc825

Predict Output #5

5   address of '5'

5   address of '5' (but incremented by 4)

10   address of '10' (but incremented by 4)

10   address of '10'

11   address of '11'   The have the same address

12   address of '12'

12   address of '12'

Predict Output #6

a[0]: 6 a[1]: 5

a[2]: unknown

a[3]: 7 a[4]:

unknown

Predict Output #8

Mark[0][2]: 24   Mark[1][3]: 30   Mark[2][2]: 40

Analyze the segment below and identify
- Type of pointers
- Invalid statements

Invalid statements:

*p1 = 20   (assigning an integer (20) to a pointer (p1) is not allowed)

*p2 = 50   (p2 is a pointer to a constant integer so, the value it points to cannot be modified.)

p3 = &y (p3 is constant pointer so, its address cannot be changed) p4 = &y   (p4 is constant

pointer so, its address cannot be changed)

*p4 = 90 (p4 is a pointer to a constant integer so, value it points to cannot be modified)

Type of pointers

In the given code, the valid pointers are just the ordinary pointers(don't have a certain type), but we can classify them as: int *p1: Non-constant pointer to an integer (int*). const int *p2: Pointer to a constant integer (const int*). int *const p3: Constant pointer to an integer (int* const).

const int *const p4: Constant pointer to a constant integer (const int* const).

Practical exercise is uploaded in github with link attached