ASSIGNMENT-6

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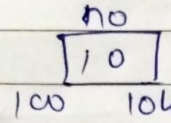
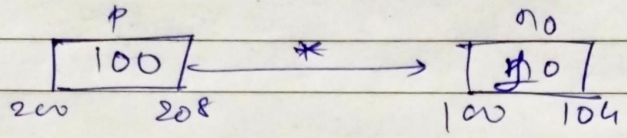
1] a) int no = 10;
b) int *p = &no;
c) int *q = &no;
d) int **a = &p;

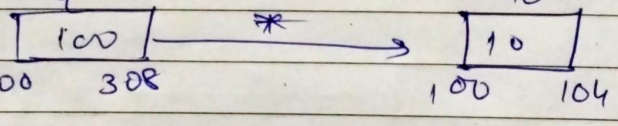
a) no is a variable of type integer initialized with value 10.



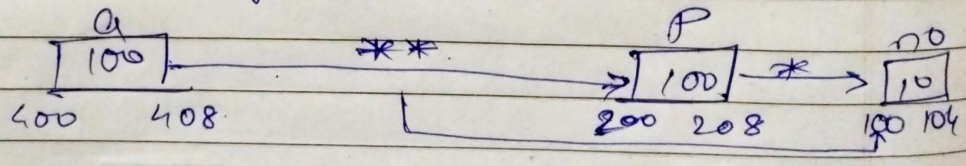
b) p is a pointer, pointing to integer, holding address of no.



c) q is a pointer, pointing to integer, currently holding address of variable no.

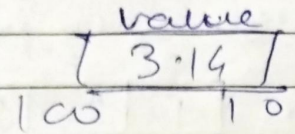


d) a is a pointer, pointing to a pointer holding address of p.

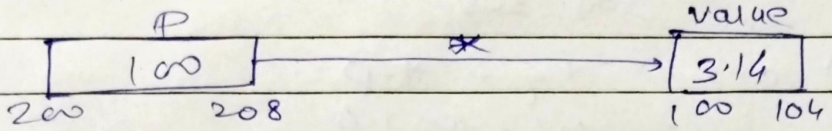


2] a) float value = 3.14;
b) float *p = &value;
c) float *q = p;
d) float ans = *p + *q

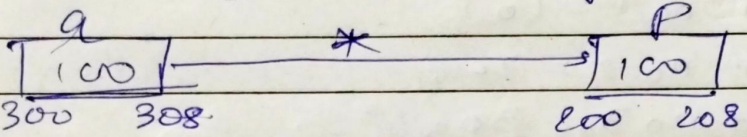
a) value is a variable of float datatype. Initialized with value 3.14.



b) p is a pointer, which points to float & currently holds address of value.



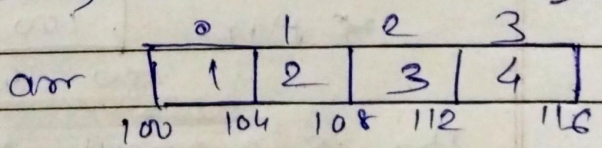
c) q is a pointer, which points to another pointer, holding address of p.



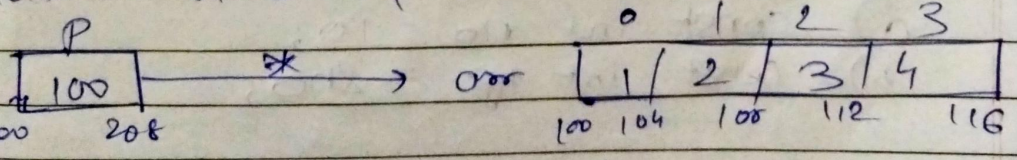
d) ans is a variable, holding value ~~addition~~ of *p and *q.
→ Addition of 2 pointer = 'NOT ALLOWED'

3] a) int arr[] = {1, 2, 3, 4};
b) int *p = arr;
c) int *q = arr + 1;
d) int ans = *q - *p;

a) arr is an array having 4 element of integer datatype each.



b) p is a pointer pointing to integer, holding address of array arr.



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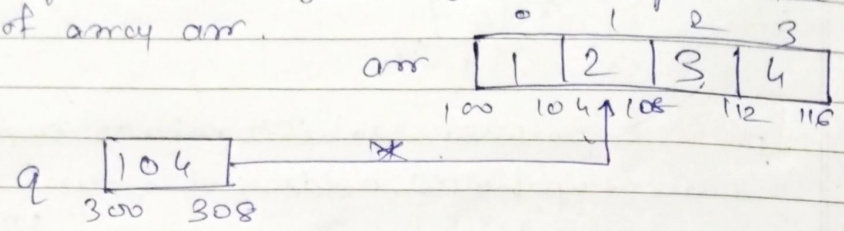
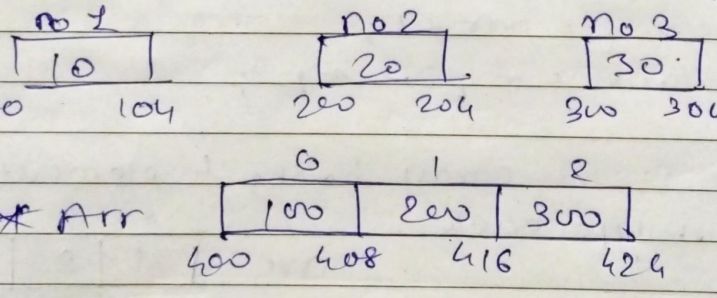
c) q is a pointer of type integer which points the 1st index of array arr.



d) int ans = *q - *p
= 104 - 100 / 4
= 4 / 4 = 1

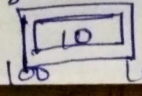
4) int no1 = 10;
int no2 = 20;
int no3 = 30;
int * Arr[] = {&no1, &no2, &no3};

no1 is a variable of integer datatype, initialised with value 10.
no2 & no3 are variable of integer datatype initialized with value 20 & 30 respectively.

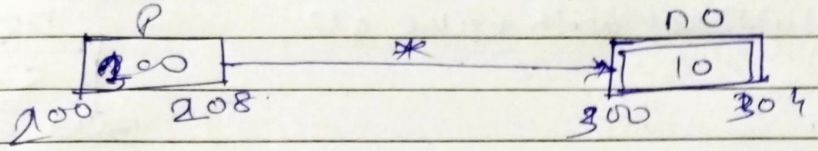


Arr is a array pointer pointing to integer holding address of elements no1, no2 & no3.

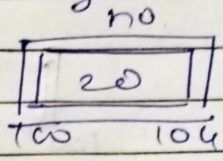
5) a) const int no = 10;
b) const int *p = &no;

a) no is a constant variable of integer datatype initialised with value 10. no 

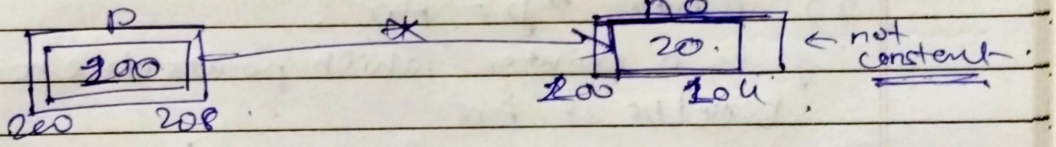
4) p is a constant pointer which points to integer constant & holds address of no.



6) a) const int no = 20;
no is a variable of type integer constant initialized with 20.

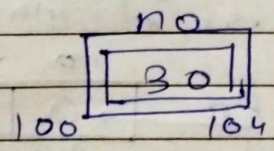


b) ~~const int *p = &no;~~
int * const p = &no;
p is a constant pointer which points to integer & currently it holds address of no variable.

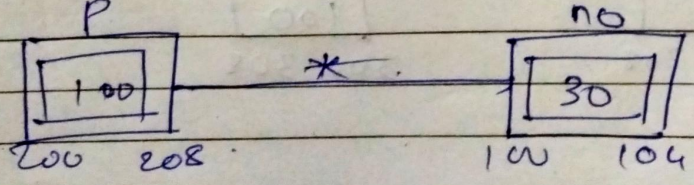


7) a) const int no = 30;
b) const int * const p = &no;

a) no is a variable of integer constant initialized with value 30



b) p is a constant pointer pointing to constant integer & currently holds address of no



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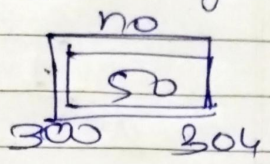
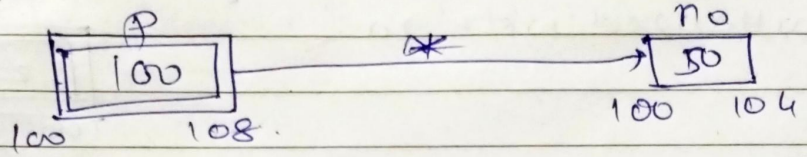
8] a) const int no = 50;
no is a constant veriable of type integer initialized with value 50.



b) int const * const p = &no.
p is a constant pointer, pointing to integer & holds address of no.

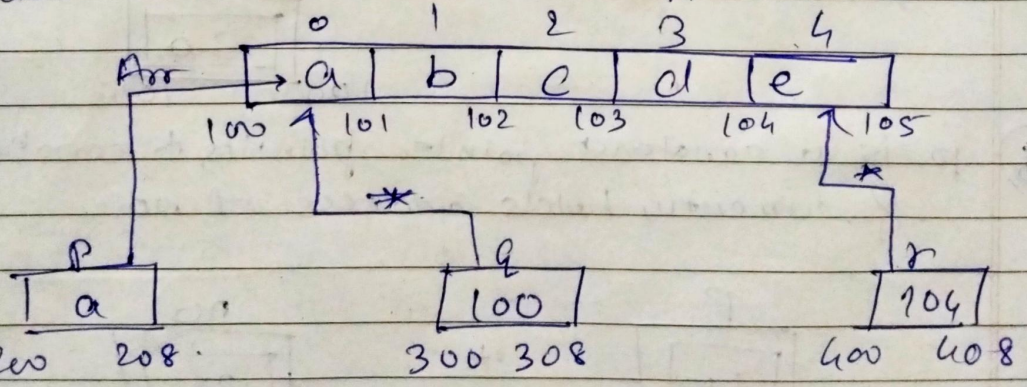


9] 1) char Arr [] = {'a', 'b', 'c', 'd', 'e'};
Arr is an array of type character containing 5 elements of type char.

2) char *p = Arr;
p is a pointer which points to character, holding address of Arr.

3) char *q = &(Arr[0]);
q is a pointer which points to character array & hold address of 0th element of Arr.

4) char *r = &(Arr[4]);
r is a pointer pointing to character, holding address of 4th index of Arr.



10] 1] double Arr[] = {10.5, 20.6, 30.2};
Arr is a array of type double which contains elements each of type double.

2] double *q = &(Arr[0]);
q is a pointer pointing to double, holding address of 0th index of Arr.

3] ~~double *q~~ double *p = Arr;
p is a pointer, pointing to double holding value of Arr.

4] double *r = &(Arr[2]);
r is a pointer which points to double, holding address of 2nd index of Arr.