Assignment -6 27-08-2023

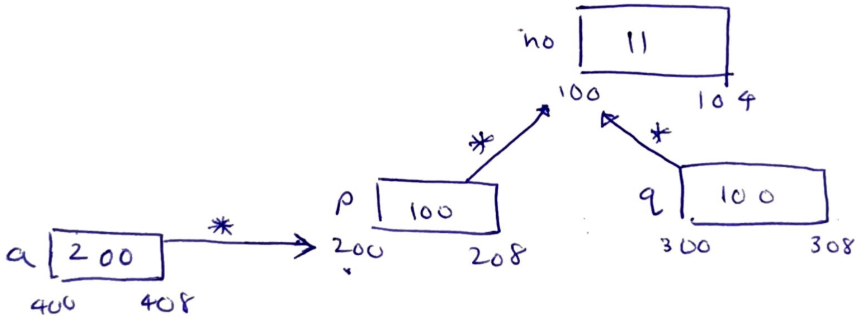
Q1]
```
int no= 11 ;
int *p= &no;
int *q = &no;
int **a = &p;
```

Ans no is a variable of integer data type, having value 11 assigned to it.

p is a pointer which points to an integer, currently it holds address of no.

q is a pointer which points to an integer; currently it holds address of no.

a is a pointer to pointer which points to a pointer, currently it holds address of p.

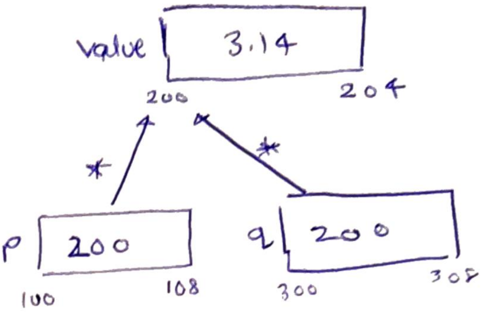


Q2]
```
float value = 3.14;
float *p = & value;
folat *q = p;
float ans = *p +*q ;
```

- value is a variable of type float, having value 3.14 assigned to it
- p is a pointer which points to an float, currently it holds address of value.

] q is a pointer which points to a float *, currently it holds the value of p (i.e. address of value)

] ans is a variable that holds the addition of *p + *q i.e (value+value)



*q [illegible] p assign

[illegible] unsigned long int

address [illegible]

[illegible]

[illegible]

[illegible] of point [illegible]

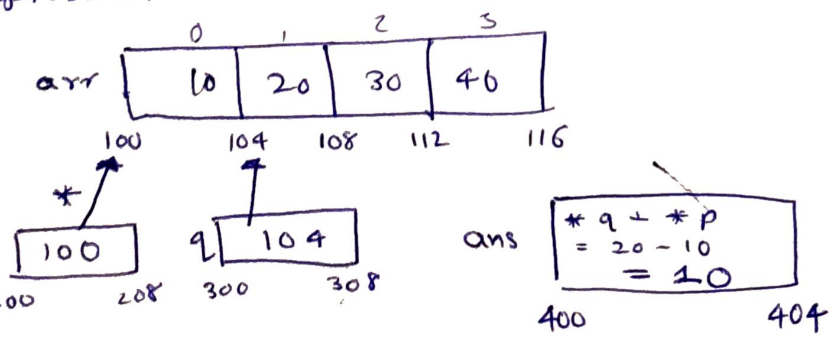
Q3] int arr[] = {10,20,30,40};
int *p = arr;
int *q = arr+1;
int ans = *q - *p;

] arr is a one dimensional array, which contains 4 elements, each element of type integer.

] p is a pointer, which points to an array of 4 elements, currently it holds address of arr.

] q is a pointer, which points to an array of 4 elements, currently it holds address of arr+1.

] ans is a variable of type integer assigned with (*q - *p) expression.



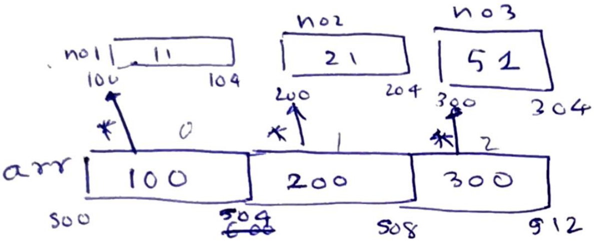
Q4] int no1 = 11 , no2 = 21 , no3 = 51 ;

int * arr[] = {&no1 , &no2 , &no3 };

] no1 , no2 & no3 are variables of type integer assigned with values.

] arr is an one dimensional array, which consists of 3 elements, each element of type ~~pointer~~ unsigned long int (it stores addresses)

] This is an array of pointers which stores addresses of same data type.

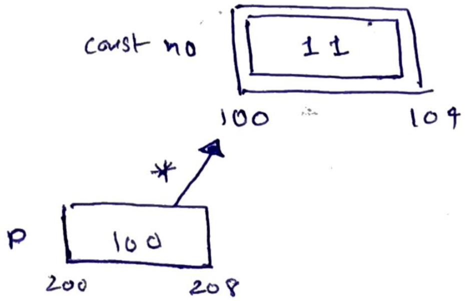


Q5] const int no = 11;

const int *p = &no;

] no is a variable of type integer & qualifier const which has been assigned value 11.

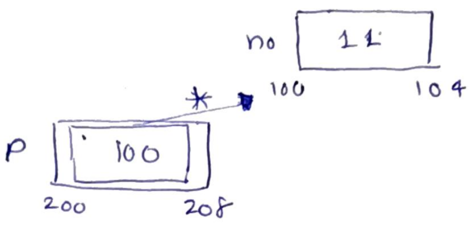
] p is a pointer, which points to an integer constant, currently it holds address of no.



Q6]
```
int no = 21;
int * const p = &no;
```

] no is a variable of type integer, which has been assigned value 21.

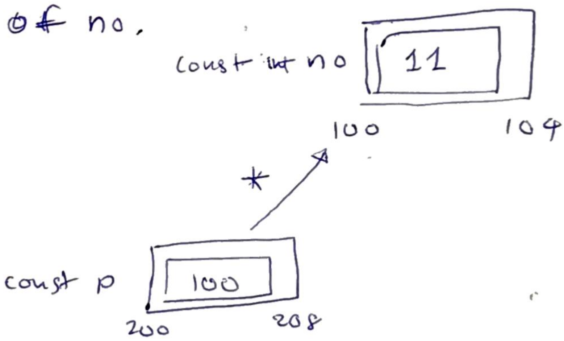
] ~~&~~ p is a constant pointer, ~~pointing t~~ which points to an integer, currently it holds address of no.



Q7]
```
const int no = 11;
const int * const p = &no;
```

] no is a variable of type integer & qualifer const, which has been assigned value 11.

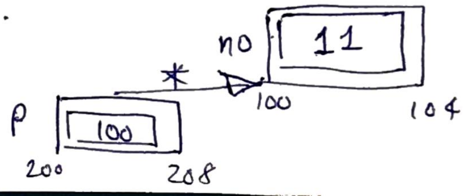
] p is a constant pointer, which points to an integer constants currently it holds address of no.



Q8]
```
const int no = 11
int const * const p = &no;
```

] no is a variable of type integer & qualifier const which has been assigned value 11

] p is a constant pointer which points to an constant integer, currently it holds address of no.



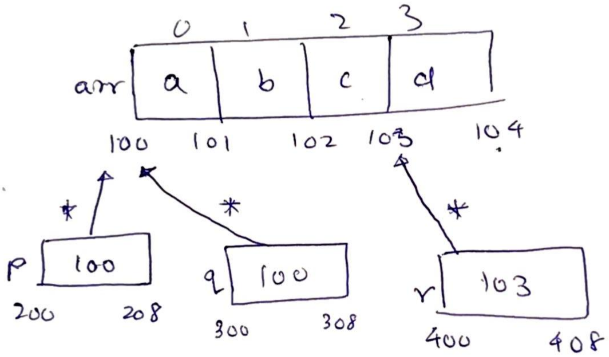
```
q9]  'char arr[] = { 'a', 'b', 'c', 'd' }
      char * p = arr;
      char * q = &(arr[0])
      char * r = &(arr[3])
```

·] arr is a one dimensional array, it consists of four elements, each element of type char .

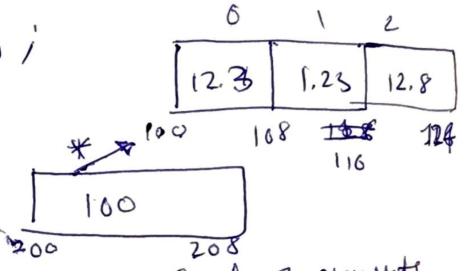
·] p is a pointer, which points to an ~~array~~, character, currently it holds an array of characters

·] q is a pointer which pointse to an character, currently it holds address of 0th element of array. 'arr'

·] r is a pointer, which points to characters, currently it holds address of ~~+~~ 3rd element of array arr.



```
q10] double arr[] = { 12.3, 1.23, 12.8 };
     double * p = arr;
     char * q = &(arr[0]);
     char * r = &(arr[3]);
```



·] arr is a one dimensional array, it consists of ~~to~~ 3 elements each element of type double.

·] p is a pointer, which pointsg to double data type, currently it holds address of arr.

·] A character pointer cannt point to an double value

·] A character pointer cannot point to an double value