

# Assignment No:-5

classmate

Date \_\_\_\_\_

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Q1 Write the statement reading which describes below syntax and draw its diagrammatic layout.

1) ~~int no = 10;~~  
~~int \*p = &no;~~  
~~int \*q = &no;~~  
~~int \*\*\*a = &p;~~

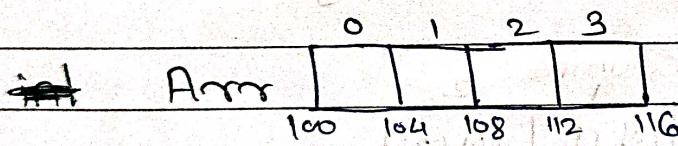
→ 

1) int Arr [4];

Arr is a one dimensional array, which contains four elements in it, each element is of integer data type.

Syntax - Datatype arrayname<sup>length</sup>[size of array];

int arr; ~~int arr~~ Arr[4];

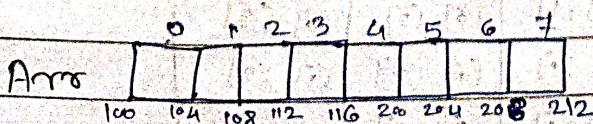


2) float Arr[8];

Arr is a one dimensional array, which contains eight elements in it, each element is of float data type.

Datatype arrayname [length of array];

float Arr[8];



3) int Arr [3][5]

Arr is a two dimensional array which contains three rows and five columns in it. Each element is of integer data type.

Syntax -

Data type arrayname [rows] [columns],

	Columns				
	0	1	2	3	4
0	[0][0]	[0][1]	[0][2]	[0][3]	[0][4]
1	[1][0]	[1][1]	[1][2]	[1][3]	[1][4]
2	[2][0]	[2][1]	[2][2]	[2][3]	[2][4]

4) double Arr [3][3]

Arr is a two dimensional array which contains three one dimensional arrays in it. Each element is of double data type.

	Columns		
	0	1	2
0	[0][0]	[0][1]	[0][2]
1	[1][0]	[1][1]	[1][2]
2	[2][0]	[2][1]	[2][2]

5) char Arr [3][4]

Arr is a two dimensional array which contains three rows and four columns in it. Each element is of character data type.

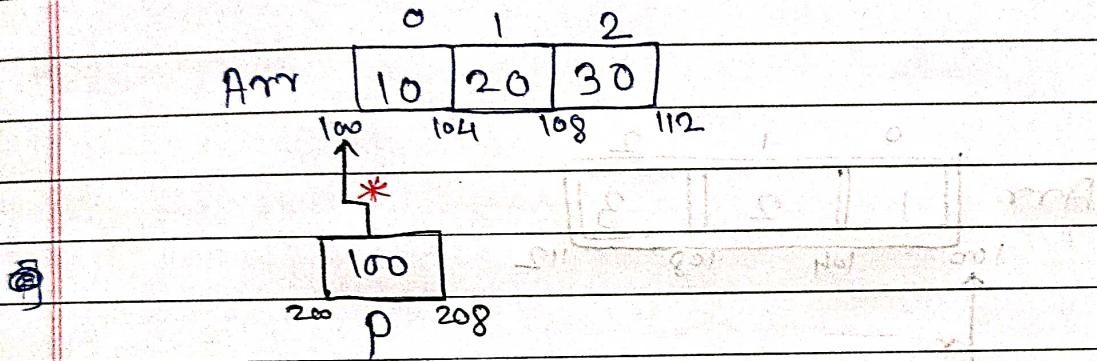
	Columns			
	0	1	2	3
0	[0][0]	[0][1]	[0][2]	[0][3]
1	[1][0]	[1][1]	[1][2]	[1][3]
2	[2][0]	[2][1]	[2][2]	[2][3]

6) `int Arr [6] = {10, 20, 30};  
int * p = & Arr;`

→ Arr is one dimensional array, which content six elements in it. Each element is of integer data type. The elements are initialized with 10, 20, 30. P is a pointer which points to integers & currently holds the address of Arr.

Syntax -

`datatype arrname [lengthofarray] = {value1, ..., valueN}`  
data elements

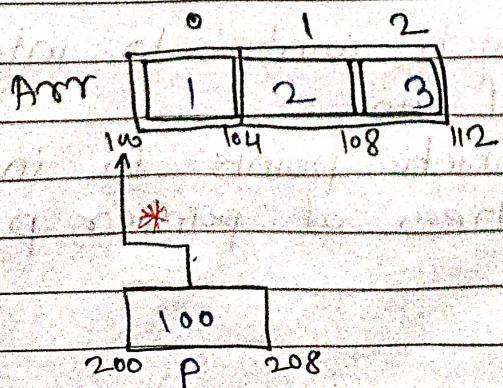


7) `int const Arr [3] = {1, 2, 3};`

`int * p = & Arr`

→ Arr is one dimensional array, which content three elements in it. Each element is of constant integer data type. Elements are initialized with 1, 2, 3.

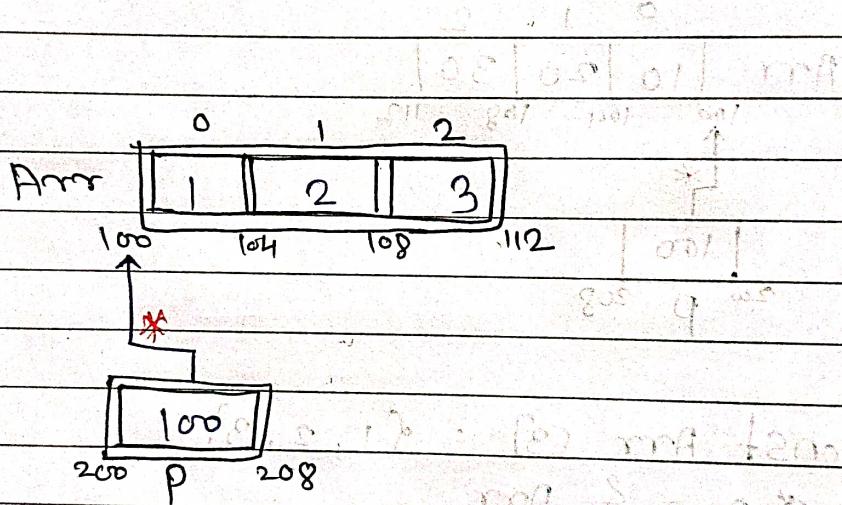
P is a pointer which points to integer & currently holds address of Arr.



8) `int const Arr [3] = {1, 2, 3};`

`int const * const p = &Arr;`

→ Arr is a one dimensional array which contains three elements in it. Each element is of constant integer data type. Elements are initialized with 1, 2, 3. P is a constant pointer which points to integer constant and currently it holds address of Arr.



9) `int no = 10;`

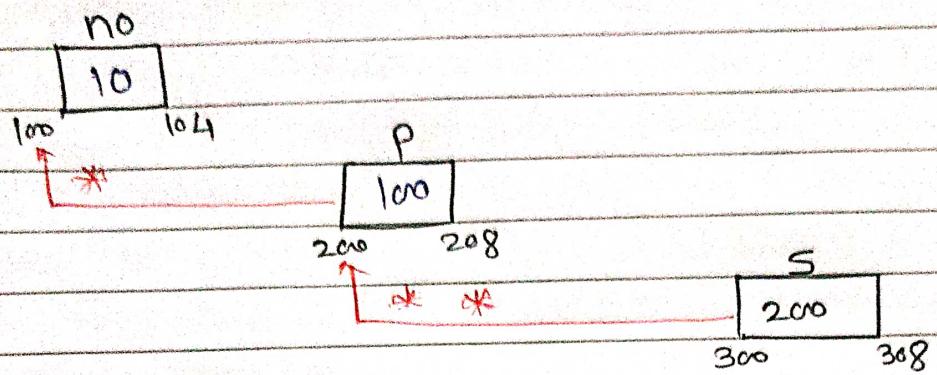
`int *p = &no;`

`int **s = &p;`

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

P is a pointer which points to integer & currently it holds address of no.

S is a pointer which points to integer & currently holds address of pointer p.



10] `char c = 'z'.`

`char *chptr = & c;`

→

`c` is a variable of type character initialized with value z.

`chptr` is a pointer which points to character `&c` currently holds the address of `c`.

