CS & IT ENGINEERING

Programming in C

Arrays and Pointer – 5

DPP 02 Discussion Notes

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01 Question

02 Discussion

Q.1

[MCQ]

Consider the following program:

```
#include<stdio.h>
int main()
    {
        int a[5]={5, 3, 1, 2, 4};
        int *p[5]={a, a+1, a+3, a+2, a+4};
        printf("%u\t%u", p[3][1], *(*(p+4)-2));
        return 0;
    }
```

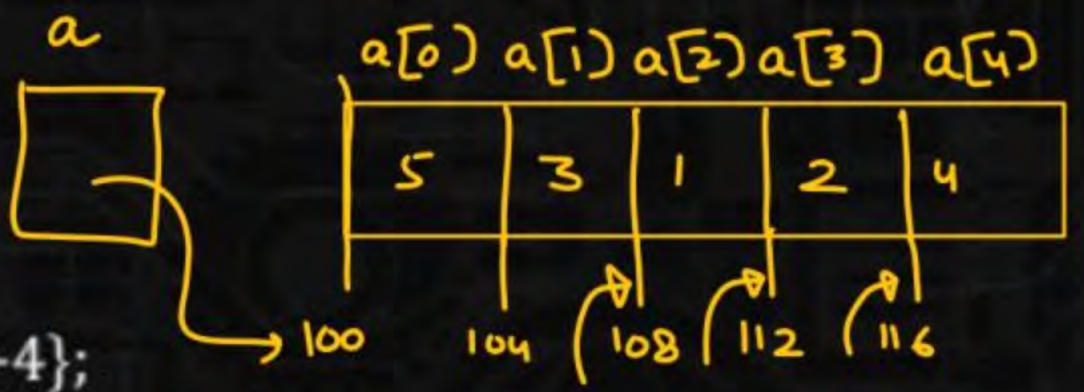
The output is:

A. 5 3

B. 4 1

C. 2 1

D. Garbage value

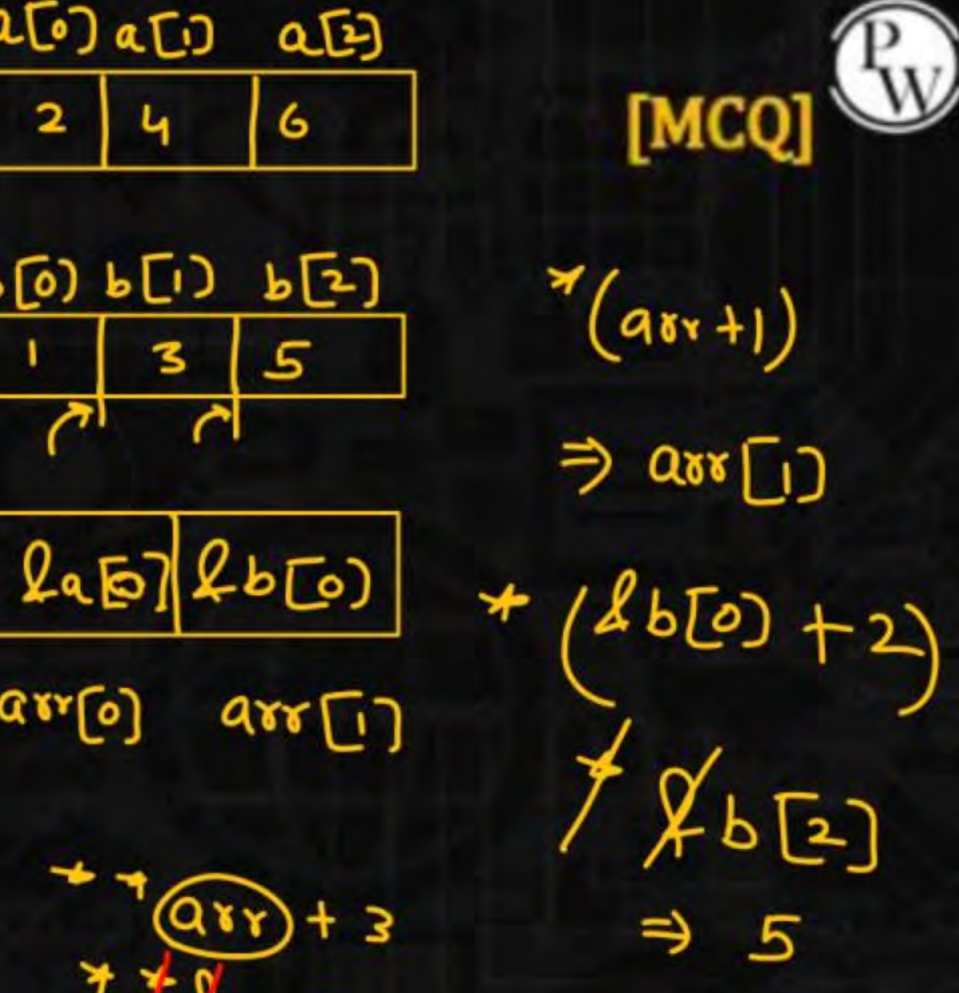


Q.2

[MCQ]

Consider the following program:

```
#include <stdio.h>
int main(){
   int a[]={2, 4, 6};
   int b[]={1, 3, 5};
   int *arr[]={a, b};
   printf("%u\t", *(*(arr+1)+2));/*line 1*/
   printf("%u\t",**arr+3);/*line 2*/
   printf("%u",***arr);/*line 3*/
   return 0;
}
```



Which of the following lines does not give ERROR?

A. Line 1 only

B. Line 1 and Line 2 only

C. Line 3 only

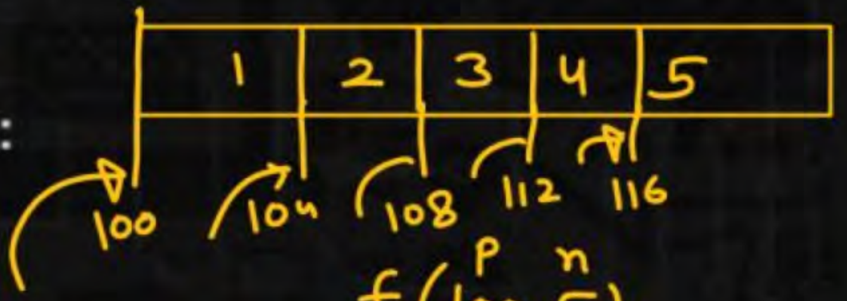
D. Line 2 and Line 3

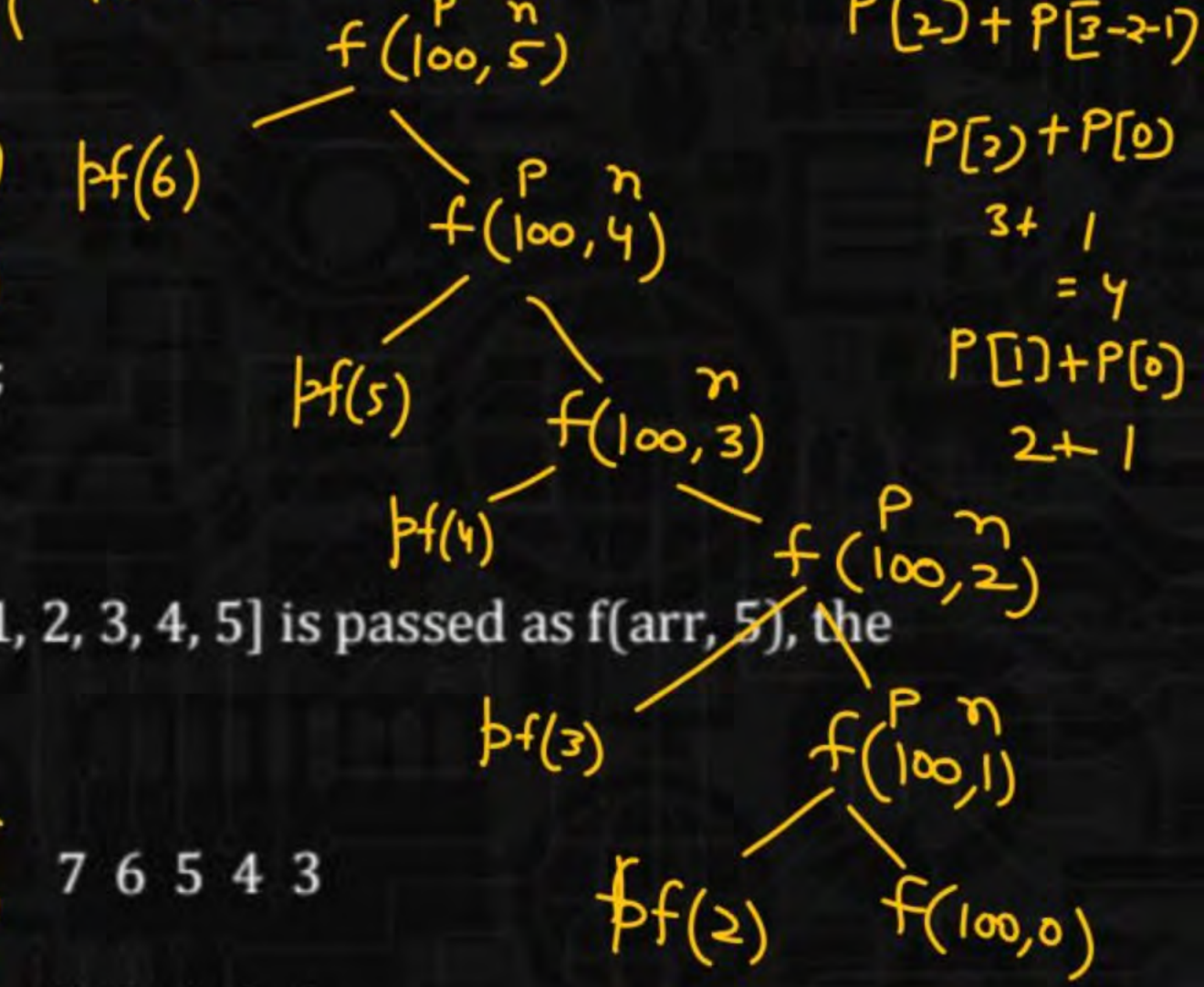
Q.3

[MCQ]

Consider the following function:

```
void f(int *p, int n)
 {
   static int i;
   i=n-1;
   if(i<0) return;
   printf("%d\t", p[i]+p[n-i-1]);
   f(p,n-1);
 }
```





P[2] + P[3-2-1]
P[2] + P[0]
3 + 1
= 4
P[1] + P[0]
2 + 1

If the array arr with elements [1, 2, 3, 4, 5] is passed as f(arr, 5), the output is-

(C)

A. 5 4 3 2 1

B. 7 6 5 4 3

C. 6 5 4 3 2

D. 2 3 4 5 6

Q.4

[NAT]

Consider the following program:

```
#include<stdio.h>
int main()
 {
   int a[5]={5, 3, 1, 2, 4};
   int *p[5]={a+3, a+1, a, a+2, a+4};
   int **ptr=p+3;
   printf("%u\t%u\t%u", ptr-p, *ptr-a, **ptr);
   return 0;
 }
```

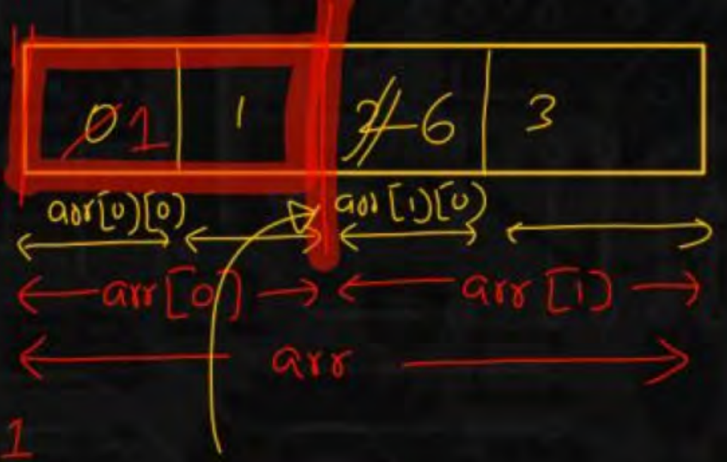
The sum of the output is _____.

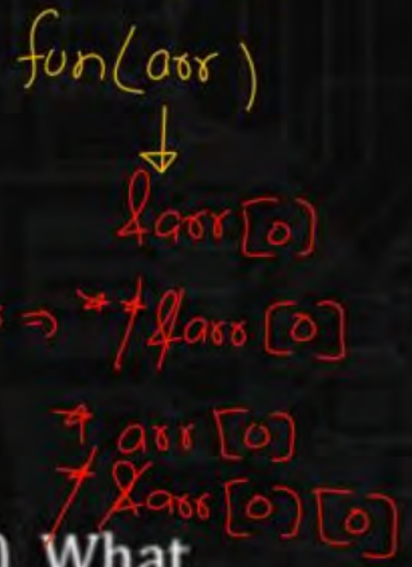
Q.5

[MCQ]

Consider the following function:

```
void func(int (*ptr) [2])
{
 **ptr+=1;
  ptr++;
 **ptr*=3;
}
```





The array arr[2][2] with elements {0, 1, 2, 3} is passed to func(). What are the contents of the array after calling func()?

(A) 1 1 6 3

(B) 0 1 2 3

(C) 1 1 2 3

(D) Compilation Error.

Q.6

[MCQ]

Consider the following program:

```
#include<stdio.h>
int main(){
int a[][3][2]={1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23};
printf("%u\t", a+1);
printf("%u\t", *a+1);
printf("%u\t",**a+1);
printf("%u\t", ***a+1);
printf("%u\t", &a+1);
return 0; }
```

Assume the base address of a is 100 and integer size is 2 bytes, the output is-

A. 124 112 102 2 106

B. 124 102 112 5 106

C. 112 106 102 2 124

D. 112 106 102 5 124

Q.7

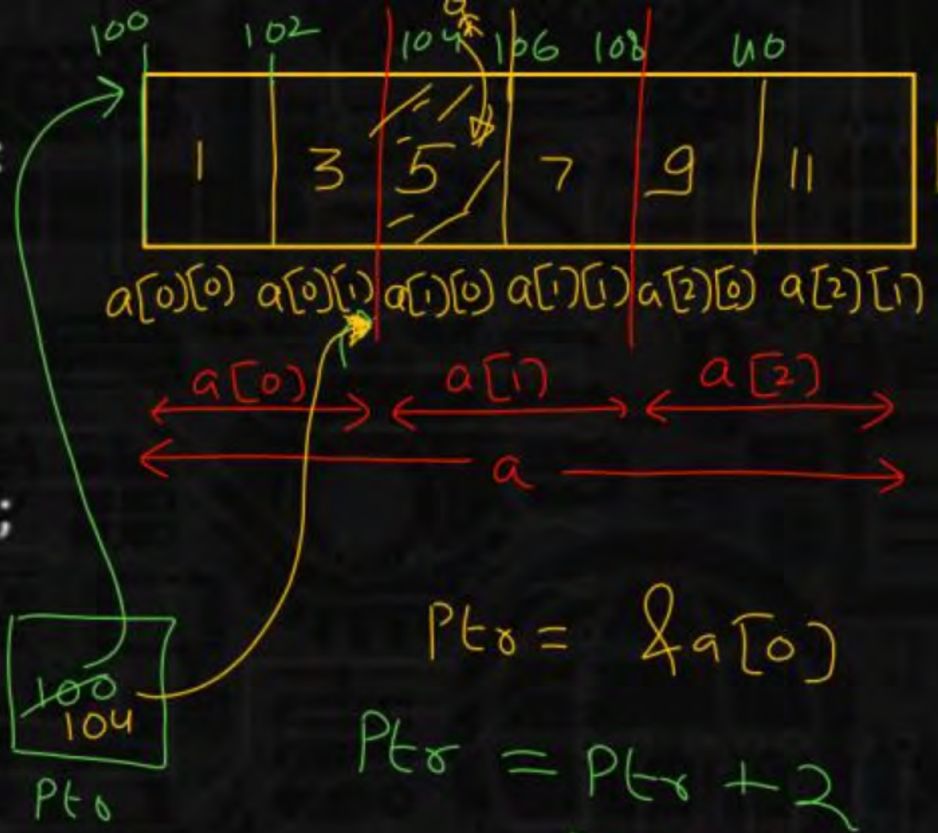
Consider the following program:

```
#include<stdio.h>
int main()
 {
     int a[3][2]={1, 3, 5, 7, 9, 11};
     int *ptr=a;
     ptr+=sizeof(int);
     printf("%d", *ptr);
     return 0;
 }
```

(Assume size of int to be 2 bytes).

The output is _____.

[NAT]



Q.8

[MCQ]

Consider the following program:

```
#include<stdio.h>
int main()
{
    int a[][2]={1, 3, 5, 7, 9, 11};
    int *ptr=a[1];
    ++*ptr++;
    printf("%d", *ptr);
    return 0;
}
```

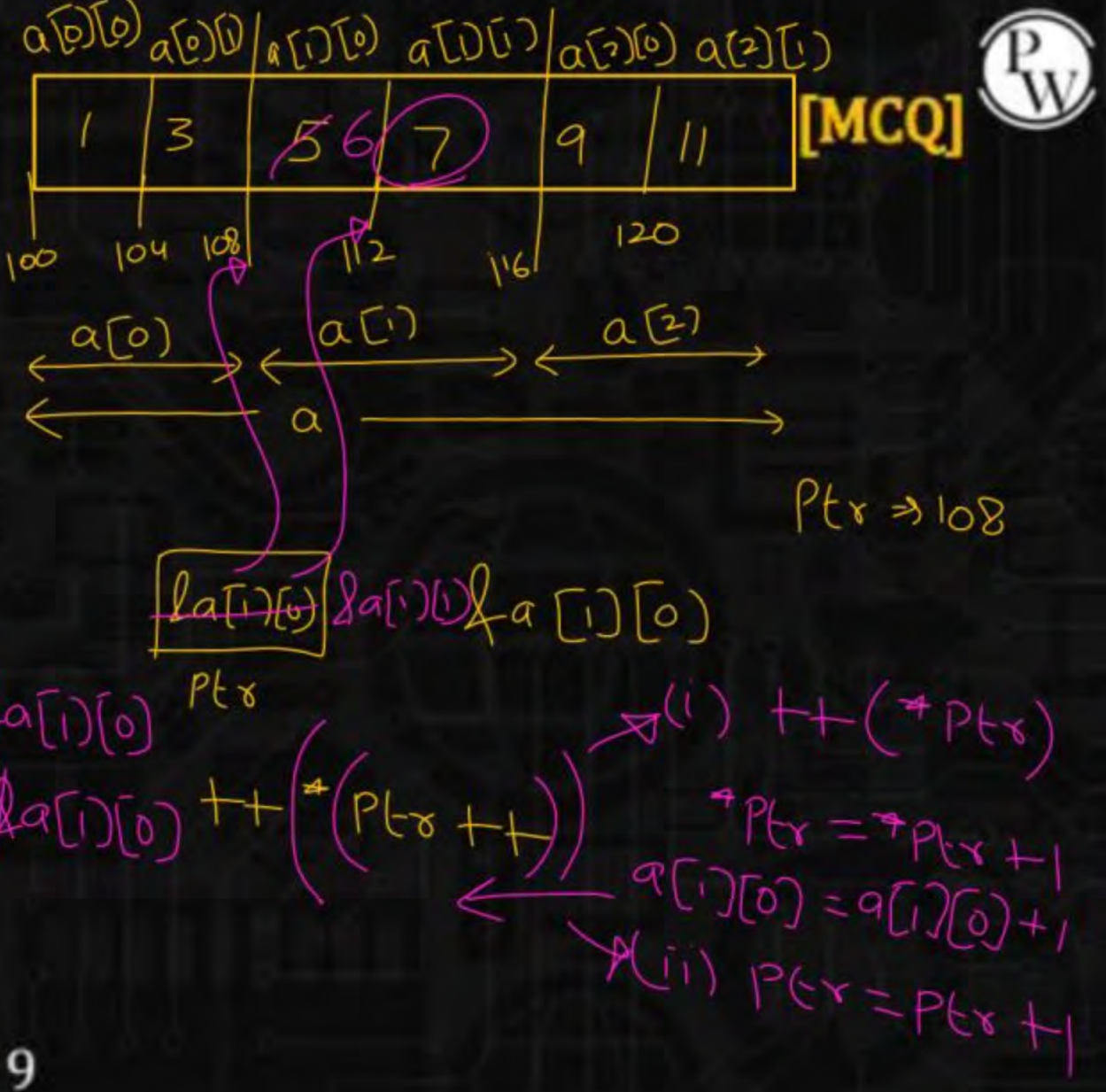
The output is-

A. 5

B. 9

C. 7 ✓ (C)

D. Compilation error




THANK YOU GW
SOLDIERS !