



CS & IT ENGINEERING

C-Programming

2024



Arrays and Pointer



DPP – 02 Discussion Notes

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[MSQ]

#Q. Which of the following declarations are INVALID?

- A `int b[][4];` =
- B `int b[];` ✗
- C `int b[2][][2]={1,2,3,4};` ✗
- D `int b[][2][2]={1,2,3,4};` ✓

[MCQ]

#Q. Consider the following two statements:

P: `int a[3]={1, 2, 3};`

`printf("%d", *a++);`

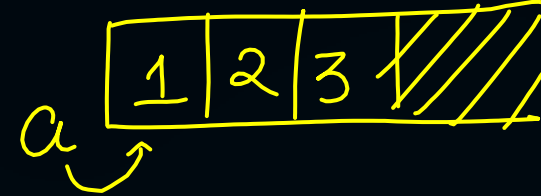
Q: `int a[3]={1, 2, 3};`

`int *p=a;`

`printf("%d", *p++);`

Which of the following statements is/are CORRECT?

Not $*(a++)$
allowed



A

P only

C

Both P and Q

B

Q only

D

Neither P nor Q

[MCQ]

#Q. Consider the following program.

```
#include<stdio.h>
```

```
int main(void)
```

```
{
```

```
    int a[5] = {5, 10, 15};
```

```
    printf("%d", 1[a]);
```

```
    return 0;
```

```
}
```

The output is 10.

1[a] = a[1]

A

5

B

10

C

Garbage value

D

Compilation error

[MCQ]

#Q. Consider the following program:

```
#include<stdio.h>
```

```
int main(void)
```

```
{
```

```
    int 5[a]={5, 10, 15};
```

```
    printf("%d", 1[a]);
```

```
    return 0;
```

```
}
```

The output is ____.

A

5

C

Garbage value

B

10

D

Compilation error

Not allowed

[MCQ]



1000	1002	1004	1006	1008
5	10	15	20	25

#Q. Consider the following program:

```
#include<stdio.h>
```

```
int main(void) {
```

```
    int a[5]={5, 10, 15, 20, 25};
```

```
    printf("%u", a);
```

```
    printf("%u", *(a+3));
```

```
    printf("%u", a+2);
```

```
    printf("%u", *(a+2)+6);
```

```
    printf("%u", *(a+*(a+1)-6));
```

```
    return 0;
```

```
}
```

A

1000 20 1004 21 25 ✓

B

5 20 15 21 25

C

1000 20 1002 21 24

D

Compilation error

$*(1000 + 10 - 6) = *(1000 + 4)$ $*(a+2) = *(1004) + 6 = 15 + 6 = 21$

Assuming the base address of the array to be 1000 and integer size as two bytes, the output is-

$*(1000 + 4 \times 2)$

[MCQ]

5	10	15	20	25
1000	1004	1008	1012	1016

#Q.

Consider the following program:

```
#include<stdio.h>
```

```
int main(void)
```

```
{
```

```
    int a[5]={5, 10, 15, 20, 25};
```

```
    printf("%u\t", *(1+a));
```

```
    printf("%u\t", &a+1);
```

```
    return 0;
```

```
}
```

A 1004 1020

B 10 1016

C 10 1020 ✓

D 1004 1016

* (1000+1)

* (1004)

Assuming the base address of the array to be 1000 and integer size as four bytes the output is

1000 + 1 × 20 = 1020
Array address



THANK - YOU