



# CS & IT

ENGINEERING

## C-Programming

2024

Arrays and Pointer

DPP - 02 Discussion Notes



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#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};

✓

#Q. Consider the following two statements:

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

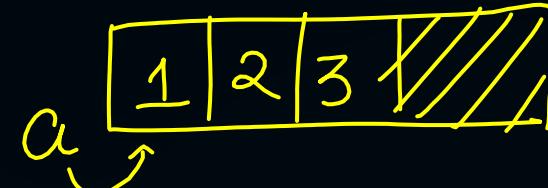
printf("%d", \*a++); *Not allowed*

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

int \*p=a;

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

Which of the following statements is/are CORRECT?



A

P only

C

Both P and Q

B

Q only

D

Neither P nor Q

#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.

A 5

C Garbage value

B 10

D Compilation error

1[a] = a(1)

#Q. Consider the following program:

```
#include<stdio.h>
int main(void)
{
    int 5[a]={5, 10, 15};
    printf("%d", 1[a]);
    return 0;
}
```

Not allowed

The output is \_\_\_\_.

A

5

C

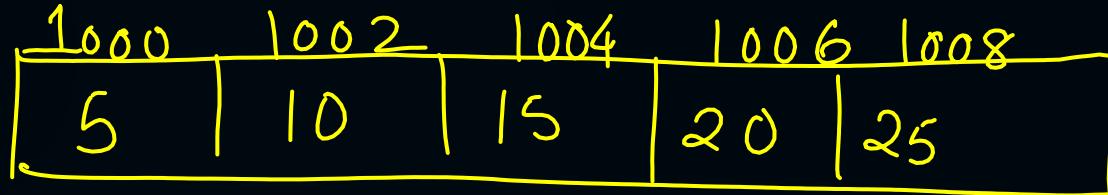
Garbage value

B

10

D

Compilation error



#Q. Consider the following program:

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

```
int main(void) {
    int a[5]={5, 10, 15, 20, 25};
```

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

A

1000 20 1004 21 25

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

B

5 20 15 21 25

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

C

1000 20 1002 21 24

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

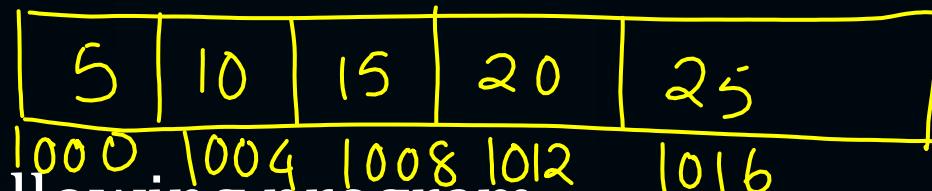
D

Compilation error

```
return 0;
```

$$\ast(1000 + 10 \cdot 6) = \ast(1000 + 60) \quad \ast(a+2) = \ast(1004) + 6 = 1004 + 6 = 1010$$

Assuming the base address of the array to be 1000 and integer size as two bytes, the output is-  $\ast(1000 + 4 \times 2)$ .



#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

$\ast(1000+1)$

$\ast(1004)$

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

1000 1x<sub>20</sub> Array address  
 $= 1020$



THANK - YOU