



CS & IT ENGINEERING

C-Programming

Functions & Storage Classes

DPP- 01 Discussion Notes



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#Q. Consider the following program:

```
#include<stdio.h>
int f2(int5a){
    int b=0;    b = 0
    b=b+5;      b = 0+5 = 5
    return a*b;
                25
}
int f1(int a){    a = 5
    int b;        b = f2(a)
    b=f2(a);      b = 255
    return a*b;
}
```

```
int main(){
    int i, a=5, b=4;
    for(i=0;i<2;i++){
        b-=f1(a)-f2(a);
        printf(5"%d\t",5b);
    }
    return 0;
}
```

a 5 b 4

i=0 -96
 -196
 292

$b = b - (f_1(a) - f_2(a))$
 125 - 25

The sum of the printed values is -292

$-96 - (125 - 25)$
 $-96 - 100 = -196$

#Q. Consider the following program:

```
#include<stdio.h>

int f2(int a){
    int b=0;
    b=b+5;
    return a*b;
}

int f1(int a){
    int b;
    b=f2(a);
    return a*b;
}
```

#Q.

```
#include<stdio.h>

void print(int n){
    for(n++;n++;n++)
        printf("GATE Wallah");
}

int main(){
    void print(); ✓
    void print(); ✓
    print(-9);
    return 0;
}
```

Which of the following is correct?

```

n++;
while(n++) {
    printf("Gate wallah").
    n++;
}

```

-9 - 8 - 7 - 6 - 5 - 4
 (1) w w w
 -3 -2
 (w)
 -1 0
 (w)
 1 2 3 4

- A

 Compilation error
- B

 "GATE Wallah" will be printed infinite number of times.
- C

 "GATE Wallah" will be printed 5 times.
- D

 "GATE Wallah" will be printed 4 times. ✓

[MCQ]



#Q. Consider the following program.

```
#include<stdio.h>
void f(int n){
    switch(n<<1+n){
        default: printf("Sresth");
        case 4: printf("Parakram");
        case 3: printf("2024");
        break;
        case 2: printf("2025");
    }
}
```

$(n = 1)$

$$n \ll 1+1$$
$$1 \ll 2 = 1 \times 2^2 = 4$$

```
int main(){
    f(1);
    return 0;
}
```

The output is-

- ☒ A Parakram2024
- ☐ B SresthParakram2024
- ☐ C Parakram
- ☐ D Sresth2025

#Q. Consider the following program:

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

```
int f(int b, int a){
```

```
    int x; 1 2
```

```
    x=a<<b;
```

```
    b=x*a--;
```

```
    return a+b-x;
```

```
}
```

```
int main(){
```

```
    printf("%d", f(1,2));
```

```
    return 0;
```

```
}
```

The value printed is 5.

$f(1,2)$

x 4 a 2 1

$$x = 2 \ll 1 = 2 \times 2^1 = 4$$

$$b = 4 * 2 = 8$$

$$1 + 8 - 4 = 5$$

[MCQ]



#Q. Consider the following program:

```
#include <stdio.h>
int r(int num){
    return --num;
}
int main(){
    int n=4;
    for (r(n);r(n++);r(--n))
        printf("%d\t",r(--n));
    return 0;
}
```

The output is-

Handwritten notes: $\frac{4}{w}, \frac{3}{w}, \frac{2}{w}, \frac{1}{w}, 2$
 $\frac{r(n)}{while(r(n++))}$
 $printf(" %d ", r(--n));$
 $r(--n);$
 $\textcircled{3}$



Handwritten: 3, 2, 1

- ☐ A 1 2 3
- ☐ B 1 2 3 4
- ☒ C 3 2 1
- ☐ D 4 3 2 1

Handwritten: $\textcircled{3} \textcircled{2} \textcircled{1}$



THANK - YOU