# C Programming Questions (with Answers)

1. What will be the output of the following program ?

```
#include<stdio.h>

int fn(void);
void print(int,int(*)());
int i=10;
void main(void)
{
    int i=20;
    print(i,fn);
}
void print(int i,int (*fn1)())
{
    printf("%d\n",(*fn1)());
}

int fn(void)
{
    return(i-=5);
}
```

a) Syntax error in line number 3.
b) 15
c) 5
d) 0

Ans : c


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2. What will be the output of the following program ?

```
#include<stdio.h>
int sum_up(int *,int);
void main(void)
{
    int x[10];
    int i=10;
    for(;i;)
    {
        i--;
        *(x+i)=i;
```

```
    }
    printf("%d", sum_up(x,10));
}
int sum_up(int array[],int size)
{
    int i=0;
    float sum=0;
    for(; i < size; i++)
        sum += array[i];
    return sum;
}
```

a) Unpredictable output.
b) 45
c) 55
d) Syntax error

Ans : (b)


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3. What will be the output of the following program ?

```
int coins[5]={20, 5, 20, 3, 20};
void main(void)
{
    int pos=5, *next();
    *next() = pos;
    printf("%d %d %d",pos,*next(),coins[0]);
}
int *next()
{
    int i;
    for(i=0;i<5;i++)
            if (coins[i]==20)
                    return(coins+i);
            printf("Error!");
    exit(0);
}
```

a) 5 20 5
b) Syntax error : lvalue required
c) 5 20 20
d) 5 20 3

Ans : (a)

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4. What will be the output of the following program ?

```
main()
{
    int x=5;
    printf("%d %d %d\n",x,x<<2,x>>2);
}
```

a) 5 20 1
b) 5 40 1
c) 5 80 1
d) Syntax error

Ans : (a)

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5. What will be the output of the following program ?

```
#define LOCATE(n) printf("LOCATE: %d\n", n)
main()
{
   LOCATE(5);
}
```

a) Ascii value of 5
b) Syntax error : Type mismatch
c) LOCATE: 5\5
d) LOCATE: 5

Ans: d

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6. What will be the output of the following program segment,
when compiled using a gcc compiler ?

```
char *p = "hello, world!";
p[0] = 'H';
puts(p);
```

a) Segmentation fault.
b) Hello, world!
c) Compilation error or warning.

d) Junk output.

Ans: (a)

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7. What will be the output of the following program ?

```
int *func()
{
    static int i=7;
    return &i;
}

main()
{
    int *i = func();
    printf("%d\n", *i);
}
```

a) 7
b) Garbage output
c) Segmentation fault.
d) Syntax error.

Ans : (a)
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8. What will be the output of the following program ?

```
#include<stdio.h>
int main()
{
    char arr[100];
    func(&arr);
}

void func(char (*arr)[100])
{
printf("%d\n", sizeof *arr);
}
```

a) 4
b) 100
c) 400
d) Syntax error

Ans : (b)

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9. What is get_ptr in the following declaration ?

float (*get_ptr(const char opcode))(float, float);

a) function takes two floats and returns a pointer to a function which is
   taking a char and returns a float.
b) Not a proper declaration. Syntax error.
c) function takes two floats and returns a pointer to a float.
d) function takes a char and returns a pointer to a function which is
   taking two floats and returns a float.

Ans : (d)

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10. What is "a" in the following declaration ?

   char *(*(*a[])())()

a) pointer to a function taking a char array as argument and
   returning pointer to char
b) array of pointer to function returning pointer to function returning
   pointer to char
c) pointer to function taking a char array as argument and
   returning pointer to function returning pointer to char
d) Not a valid declaration. Syntax error.

Ans : (b)

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11. What is the output of the following program ?

```
void foo(void)
{
     unsigned int a = 6;
     int b = -20;
     printf("%d\n", (a+b) > 6);
}
main()
{
```

```
   foo();
}
```

a) 0
b) -14
c) 1
d) 26

Ans : (c)


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12. What is the output of the following program ?


```
#define min((a),(b))  ((a)<(b))?(a):(b)
main()
{
   int i=0,a[20],*ptr;

   ptr=a;
   while(min(ptr++, &a[9]) < &a[8]) i=i+1;

   printf("i=%d\n",i);
}
```

a) 1
b) 5
c) 20
d) Syntax Error

Ans : (b)
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13. What is the output of the following program ?

```
# include <stdio.h>
void main()
{
   static int a[]= { 0,1,2,3 };
   static int *p[] = { a, a+1, a+2, a+3};
   int **ptr=p;

   *++*ptr;
```

```
   printf("%d %d %d",ptr-p, *ptr-a, **ptr);
}
```

a) 0 1 2
b) 0 1 1
c) Segmentation fault
d) 4 1 1

Ans : (b)

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14. What is the output of the following program ?

```
int func(int p, int q)
{
    return (p+q);
}

void main()
{

    int x=1, y=2, z=3;

    printf("%d",func((x+3, y+=1), z--));
}
```

a) 6
b) 7
c) 5
d) 4

Ans : (a)

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15. What will be the output of the following program ?

```
void main()
{
    int j;
    int i;
    int a[8];

    for(i=0; i<=8 ;i++)
        a[i]=0;
```

```
    printf("hello");
}
```

a) hello
b) Compilation error.
c) Program will hang.
d) Stack overflow

Ans : (c)


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16. What is the output of the following program, when
    it is invoked as "a.out hello" ?

```
void main(int argc,char * argv[])
{
    printf("Hello\n");
    if (argc != 1) goto JUMP;
    printf("World\n");

JUMP:
    printf("Welcome to jump\n");
}
```

a) Hello
   Welcome to jump

b) Hello
   World
   Welcome to jump

c) Hello
   World

d) Hello
   Welcome to jump
   World

Ans : (b)


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17. What will be the output of the following program ?

```
enum {
```

```
  a = (2 * 3),
  b = (a + 4),
  c = (b + 5)
}

main()
{
    printf("%d %d %d\n", a, b, c);
}
```

a) 6 10 15
b) 0 1 2
c) Compilation Error
d) 2 2 2

Ans : (a)

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