

C expression	Value
5>6-2	1
457/100%10	4
15/6*6.0	12.0
11+1/2.0	12.5
(int)13.4/2.0	6.5
5==5-3	0
!n && n	0
2+3/2*(double)2	4.0
6==3*2	1
5 > 3%4+3	0
(double) (11/2)	5.0
375%100/10	7
0 <= 3 != 3	1

Which of the following is **not a reserved word** in c:

- i. double
- ii. x
- iii. if
- iv. scanf
- v. printf

A. ii, iv, v

B. iii

C. iii, iv, v

D. i, iii

Given the following declaration:

```
double x=3,y= 11;
```

which of the following statement prints the value 3

A. printf("%d", (int)x%y);

B. printf("%d", (int)x%(int)y);

C. printf("%d", x%(int)y);

D. All the above

What will be shown on the screen as a result of executing the following statements?

```
int x = 3;
if(x/2*2 == x)
    printf("NR");
else if(x/2*2 != 2/2*x)
    printf("ME");
else if(2/2*x == x)
```

```

        printf("IC");
    else
        printf("KM");

```

- A. NR
- B. ME
- C. IC
- D. KM

Which of the following statement is the correct function prototype if the function implementation is shown below:

```

int fun(int *x, double y) {
return (*x + y)/2;
}

```

- a) int fun(int *x, double y);
- b) int fun(int *, double) ;
- c) Both (A) and (B)
- d) None of the above

What number will be displayed to the user after running this program?

```

int div(int a);
int main(void){
printf("%d", div(div(100)));
return 0;
}

int div(int a){
return a/2;
}

```

- a) 50
- b) 25
- c) Will generate an error
- d) 100

Which of the following codes will print the pattern shown below?

```

****
***
**
*

```

A. for(i=4; i>=1; i--)
 for(m=1; m<=i; m++)
 printf("*");
 printf("\n");

B. for(i=4; i>=1; i--){
 for(m=4; m>=1; m--)
 printf("*");
 printf("\n");}

C. for(i=1; i<=4; i++){
 for(m=1; m<=i; m++)
 printf("*");
 printf("\n");}

D. for(i=1; i<=4; i++){
 for(m=1; m<=5-i; m++)
 printf("*");
 printf("\n");}

Which of the following is a valid declaration in C?

- A. `int x,y=5;`
- B. `int x=5; y=5;`
- C. `int x=5=y;`
- D. all the above;

Assume that Z is an integer variable having some value. After executing the following C statement, the value of m will be:

- ```
- int m =(Z>Z+1)*5;
```
- A. 5
  - B. Depends on the value of Z
  - C. 0
  - D. Generates a compilation error.

Assuming that all variables are declared and have values, which of the following statements will result in a compilation error?

- A. `y=x>y;`
- B. `y=x||y;`
- C. `y=x==y;`
- D. `y=2x-y;`

Given the following code fragment:

```
int x;
scanf("%d",&x);
while(!x);
```

which of the following is correct about the above while statement?

- A. infinite loop when x has non-zero value
- B. infinite loop when x is 0
- C. infinite loop when x has positive value
- D. infinite loop for any value of x

What will be shown on the screen as a result of executing the following code fragments?

```
int i = 0;
for (i++; i == 1; i = 2)
 printf("Hello ");
 printf("World");
```

- A. Hello
- B. World
- C. Hello World
- D. Compilation error

What is the output of the following code segment:

```
int i,j,k,count=0;
for(i = 0; i <= 4; i++)
 for(j = 10; j <= 12; j++)
 for (k = 7; k >=6; k--)
 count++;
printf("%d\n", count);
```

- A. 10
- B. 30
- C. 8
- D. 16

Select the correct answer which will enable the code below to print the even numbers from 2 to 20 inclusive (i.e., 2, 4, 6, ... 20):

```
int k;
for(_____)
 printf("%d ", 2 * k);
```

- A. `k = 2; k <= 20; k += 2`
- B. `k = 1; k <= 20; k + 2`
- C. `k = 1; k <= 10; k + 1`
- D. `k = 1; k <= 10; k++`

What is the correct condition that will make the code below print the value of the variable **m** only if it is an even number?

```
if (_____)
 printf("%d ",m);
```

- A. `m % 2 == 1`
- B. `m / 2 * 2 != m`
- C. `(int) m / 2.0 != m / 2`
- D. `m * m % 4 == 0`

Consider the following code fragment:

```
int x=3,y=5,m;
m=x++ * --y;
```

What will be the value of m after executing the above code.

- A. 15
- B. 16
- C. 12
- D. 20

What is the output shown after executing the following code fragment:

```
int m=2345;
while(m>10)
 m=m/10;
printf("%d ",m);
```

- A. 2
- B. 3
- C. 4
- D. 5

What is the output shown after executing the following code fragment:

```
int n=2036;
while(n%10){
 printf("%d",n%10);
 n=n/10;
}
```

- A. 36
- B. 63
- C. 630
- D. 6302

The following code fragment prints:

```
int i;
for(i=1;i<=25;i++)
 printf("%d ",i++);
```

- A. All numbers between 1 and 25
- B. All odd numbers between 1 and 25
- C. All even numbers between 1 and 25
- D. None of the above

What will be shown on the screen as a result of executing the following statements?

```
int sum=0,i=10;
while(sum<=10) {
 sum+=i;
 i-=3;
}
printf("i=%d, sum=%d\n",i,sum);
```

- A. i=7, sum=10
- B. i=4, sum=17
- C. i=4, sum=10
- D. i=7, sum=17

How many times will "ICS 103" be printed after executing the following statements?

```
int m=1, j;
do {
 j=m;
 while(j<=4){
 printf("ICS 103\n");
 j++;
 }
 m++;
} while (m <= 4);
```

- A. 9 times
- B. 10 times
- C. 12 times
- D. 16 times

|                                                                                                                                                                                                        |                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| <pre> int i,j,k,count=0; for(i = 0; i &lt;= 5; i=i+2) ++count; printf("%d\n",count); for(j = i; j &lt;= 8; j++) for (k = 0; k &lt; 6; k+=2) count++; printf("%d\n", count); </pre>                     | <p>12</p>               |
| <pre> int m = 4,n = 6,k;     int *p1,*p2;     p1 = &amp;m;     p2 = &amp;n;     *p1 = *p1 + *p2;     *p2 = m + 3;     k = m+n;     printf("m=%d, n=%d, k=%d",m,n,k); </pre>                            | <p>m=10, n=13, k=23</p> |
| <pre> int x = 5, y = 3; int *p1, *p2; p1 = &amp;x; p2 = &amp;y; *p1 = *p1 + *p2; y = x + y; x = *p1 + *p2; printf("x=%d, y=%d",x,y); </pre>                                                            | <p>x=19, y=11</p>       |
| <pre> int i, j, *ptr, *ptr1;     i = 10;     j = 10;     ptr = &amp;i;     ptr1 = &amp;j;     if(ptr == ptr1)     {         printf("True");     }     else     {         printf("False");     } </pre> | <p>False</p>            |

|                                                                                                                                                                                                                                          |                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| <pre>#include &lt;stdio.h&gt; void fun(int x, int *y); int main(void) {     int x = 7, y = 13;     fun(x,&amp;y);     fun(y,&amp;x);     printf("x=%d y=%d ",x,y);     return 0;} void fun(int x, int *y){     *y=x+3;     x=*y; }</pre> | <pre>x=13 y=10</pre> |
| <pre>int test(int *x, int y){     x=&amp;y;     return(*x+y); } int main(void){     int x=1, y=6;     test(&amp;y,x);     printf("%d %d %d",x,test(&amp;y,x),y);     return 0; }</pre>                                                   | <pre>1 2 6</pre>     |
| <pre>int i = 5, j = 6, k = 7; if(i &gt; j == k)     printf("%d %d %d", i+10, j+4, k+2); else     printf("%d %d %d", i, j, k);</pre>                                                                                                      | <pre>5 6 7</pre>     |
| <pre>int i = 1,m=0; do {     while(i)         i--;     printf("%d\n",i);     for(i++ ; m ; i++) ;     printf("A\n");     i--; }while(i); printf("%d", i);</pre>                                                                          | <pre>0 A 0</pre>     |
| <pre>int x, y, i, n; x=0; y=1; i=1; n=5;  while(i&lt;n){     printf("%d\n",x+y);     x+=y;     i++; }</pre>                                                                                                                              | <pre>1 2 3 4</pre>   |

|                                                                                                                                                                                                               |                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| <pre> int x=4;  if (x%2)     printf("even!"); else     printf("odd!"); </pre>                                                                                                                                 | <p><b>odd!</b></p>    |
| <pre> int n=567, t=0, X = 0, R=0; t = n; while (t != 0) {     R = t % 10;     X += R;     t /= 10; } printf("%d\n",X); </pre>                                                                                 | <p><b>18</b></p>      |
| <pre> int main() {     int x = 5;     if(x=5)     {         if(x=4)             printf("Hello");         else             printf("Bye");     }     printf("Hi");     return 0; } </pre>                       | <p><b>HelloHi</b></p> |
| <pre> int score = 7; if(score &gt; 15)     printf("A"); else if (score)     printf("B"); else     printf("G") ; if(score &lt;= 5)     printf("C"); else if (score&gt;10)     printf("D"); printf("E"); </pre> | <p><b>BE</b></p>      |

|                                                                                                                                                    |                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|
| <pre> int k=40, num=30; if(num&gt;5)     if(num&lt;=10)         k=10;     else         k = 20; else if(num==30)     k=50; printf("k=%d",k); </pre> | <p>K=20</p>                      |
| <pre> int i = 1, j = 2; for( j++ ; i+j&lt;12; i++){     printf("%d ",i+j);     j=j+i; } </pre>                                                     | <p>4 6 9</p>                     |
| <pre> int m,j,rows=4; for(m=1;m&lt;=rows;m++) {     for(j=m;j&gt;=1;j--)         printf("%d",j);     printf("\n"); } </pre>                        | <p>1<br/>21<br/>321<br/>4321</p> |

|                                                                                                      |                          |
|------------------------------------------------------------------------------------------------------|--------------------------|
| <pre> int i; for(i = 10; i &gt; 0; i-=6){     printf("%d  ", i+2);     printf("%d\n", --i); } </pre> | <pre> 12  9 5   2 </pre> |
| <pre> int x=1;  do{     printf("%d\n", x);     x--; } while (!x == 0); printf("%d\n", x); </pre>     | <pre> 1 0 </pre>         |

Convert the following nested for loop into equivalent nested while loop.

```

for(run=0; run<5 ; run=run+1){
 sum=0;
 for(scanf("%d",&num); num!=0 ; scanf("%d",&num))
 sum+=num;
}

```