



VIT[®]

Vellore Institute of Technology
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EMBEDDED PROGRAMMING ECE4025 (L41+L42)

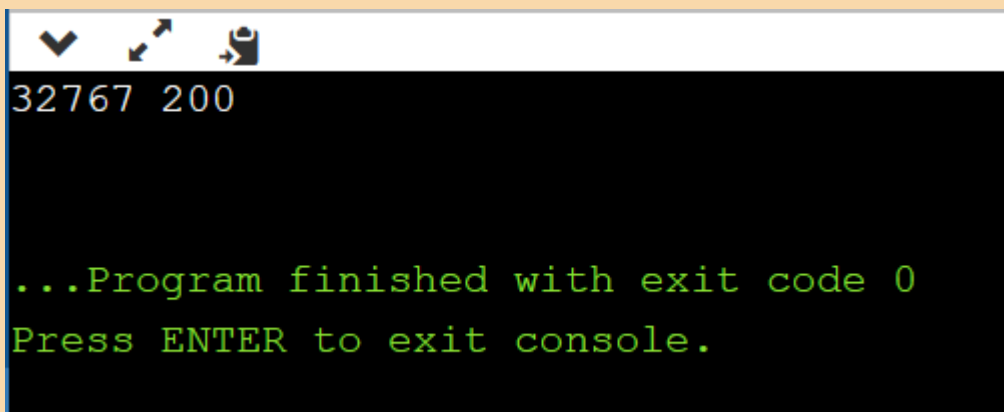
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TASK – 2

a)

```
#include <stdio.h>

int main()
{
    int a=300,b,c;
    if(a>=400)
        b=300;
    c=200;
    printf("%d%d\n",b,c);
    return 0;
}
```



```
32767 200

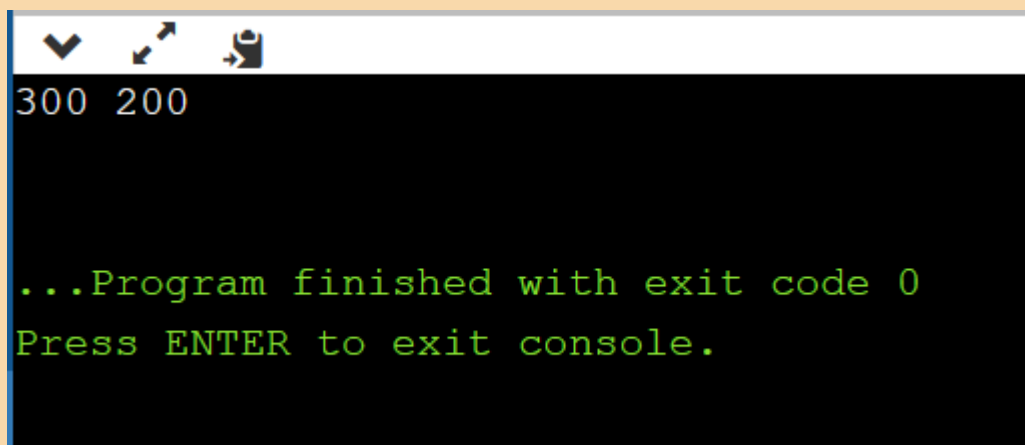
...Program finished with exit code 0
Press ENTER to exit console.
```

Since the initialization of the value of variable “b” comes under the if condition, it will not be executed since the condition is wrong.

b)

```
#include <stdio.h>

int main()
{
    int a=500,b,c;
    if(a>=400)
        b=300;
    c=200;
    printf("%d %d\n",b,c);
    return 0;
}
```



```
300 200

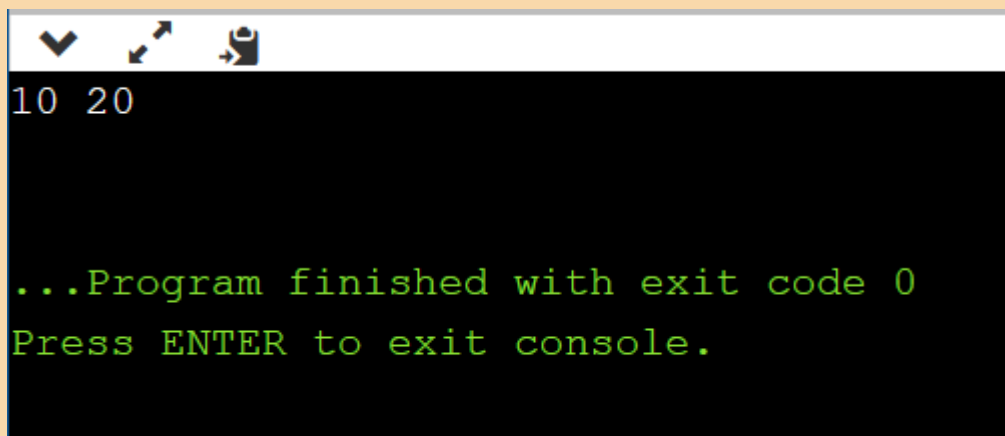
...Program finished with exit code 0
Press ENTER to exit console.
```

Since the initialization of the value of variable “b” comes under the if condition, it will not be executed since the condition is wrong.

c)

```
#include <stdio.h>

int main()
{
    int x=10,y=20;
    if(x==y);
        printf("%d %d\n",x,y);
    return 0;
}
```



```
10 20

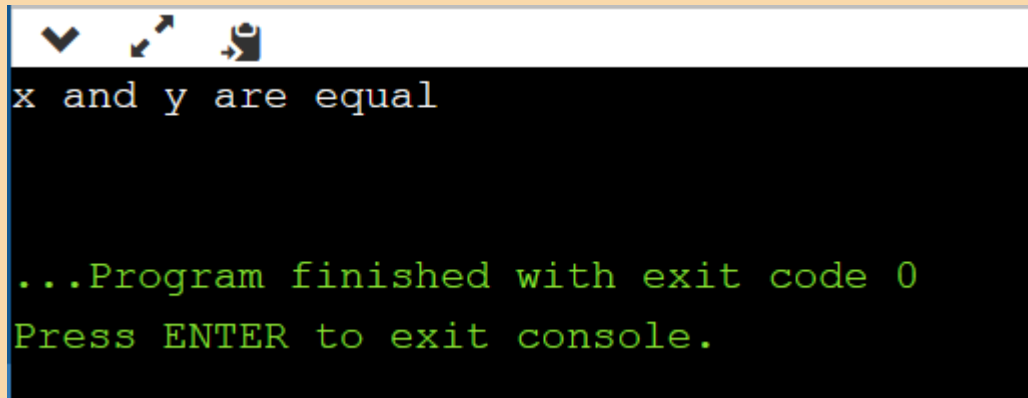
...Program finished with exit code 0
Press ENTER to exit console.
```

Since the semicolon (;) is used after the if condition, the print statement will not fall under that. Hence that statement will be executed.

d)

```
#include <stdio.h>

int main()
{
    int x=3;
    float y=3.0;
    if(x==y)
        printf("x and y are equal\n");
    else
        printf("x and y are not equal\n");
    return 0;
}
```

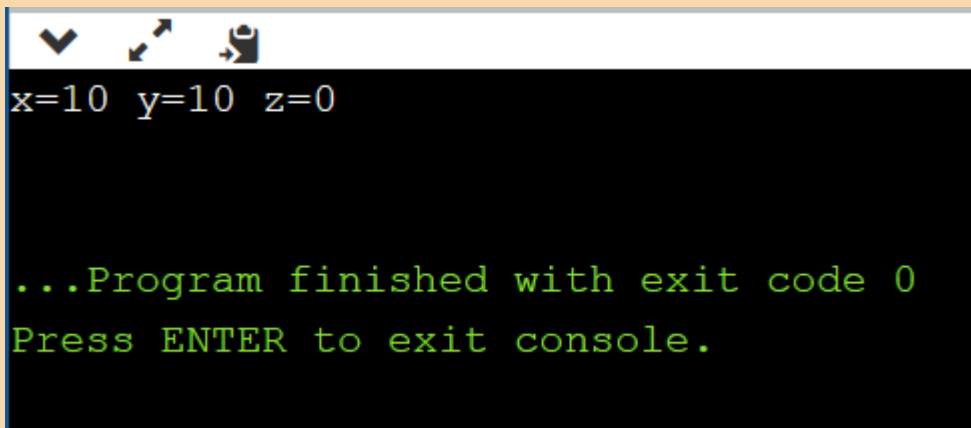
A screenshot of a console window with a black background and white text. The text displays the output of the program: "x and y are equal". Below this, in green text, it says "...Program finished with exit code 0" and "Press ENTER to exit console." The window has a standard title bar with minimize, maximize, and close buttons.

Value of both the variables are equal irrespective of the data types which they belong to. Hence the output will come as they are equal.

e)

```
#include <stdio.h>

int main()
{
    int x=3,y,z;
    y=x=10;
    z=x<10;
    printf("x=%d y=%d z=%d\n",x,y,z);
    return 0;
}
```



```
x=10 y=10 z=0

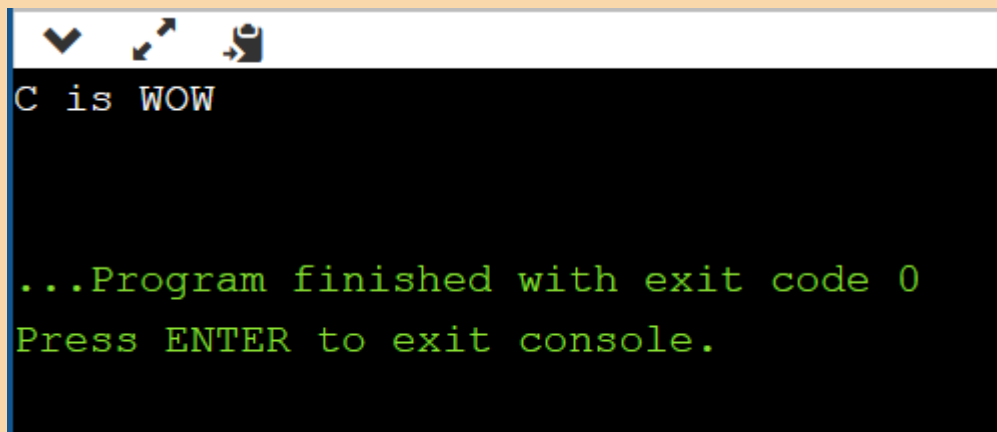
...Program finished with exit code 0
Press ENTER to exit console.
```

The statement **y=x=10** is an assignment giving the value 10 to the variable “y” and the statement **z=x<10** is conditional and will assign the value **1** if the condition on the RHS is true otherwise **0**.

f)

```
#include <stdio.h>

int main()
{
    int i = 65;
    char j = 'A';
    if(i==j)
        printf("C is WOW\n");
    else
        printf("C is a headache\n");
    return 0;
}
```



```
C is WOW

...Program finished with exit code 0
Press ENTER to exit console.
```

The ASCII value of the character “A” is taken when the variable is compared to the integer and since they both are equal the if condition is satisfied.