

Q1. Find the output for this code. Let input:- 2 3 6

```
#include <iostream>
using namespace std;
int main()
{
    int x;
    cout << "Enter first number\n";
    cin >> x; // user will give 'x' a value.
    int y, m;
    cout << "Enter second number and value for taking modulus\n";
    cin >> y >> m; // user will give 'y' a value.
    int Z = (x * y) % m;
    cout << "Output is: " << Z;
}
```

Ans-  $Z = (2 * 3) \% 6 = 6 \% 6 = 0$

Q2. Find the output for this code. Let input:- 3 2

```
#include <iostream>
using namespace std;
int main()
{
    int x;
    cout<<"Enter first number\n";
    cin>>x; // user will give 'x' a value.
    int y;
    cout<<"Enter second number\n";
    cin>>y; // user will give 'y' a value.
    cout<<(x!=y)<<" "<<(x>=y);
}
```

Ans-  $x \neq y$  is true (1), since  $3 \neq 2$ .  
 $x \geq y$  is true (1), since  $3 \geq 2$ .  
output- 1 1

Q3. Find the output for this code. Let input:- 2 3

```
#include <iostream>
using namespace std;
int main()
{
    int x,y;
    cin>>x>>y;
    x+=y;
    x-=y;
    x%=y;
    cout<<x;
}
```

Ans-

$x += y \rightarrow x = 2 + 3 = 5$   
 $x -= y \rightarrow x = 5 - 3 = 2$   
 $x \% = y \rightarrow x = 2 \% 3 = 2$   
Output-2

Q4. WAP for finding the volume of the cylinder by taking radius and height as input.

Ans-

```
#include <iostream>
#include <cmath>
using namespace std;

int main() {
    double radius, height;
    cout << "Enter radius and height of the cylinder: ";
    cin >> radius >> height;

    double volume = M_PI * radius * radius * height;
    cout << "The volume of the cylinder is: " << volume << endl;

    return 0;
}
```

Q5. WAP to find the difference between ASCII of two characters ,take them as input.

Ans-

```
#include <iostream>
using namespace std;

int main() {
    char char1, char2;
    cout << "Enter two characters: ";
    cin >> char1 >> char2;

    int diff = abs(char1 - char2);
    cout << "The difference between ASCII values is: " << diff << endl;

    return 0;
}
```

Q6. Find the output of the below code

```
#include <iostream>
using namespace std;
int main()
{
    int i = ( 4 + 7 / 5 * 6 * 6 + 9 ) % 100 ;
    cout << i;
}
```

Ans-

$7 / 5 = 1$  (integer division)

$1 * 6 * 6 = 36$

$4 + 36 + 9 = 49$

$49 \% 100 = 49$

Output- 49