**Question 1**

| // Ex- write a simple program to print any message on console |  |
| --- | --- |
|  |  |
|  |  |
|  | // hash means preprocessor |
|  | // include means including while running |
|  |  |
|  | #include <iostream> |
|  | using namespace std; // to avoid using std: again and again |
|  |  |
|  | // namespace is used to call a particular function out of multiple function with same name |
|  |  |
|  | int main() |
|  | { |
|  | cout<<"Hello World"; |
|  | return 0; //return 1 in the main function means that the program does not execute successfully |
|  | } |
|  |  |
|  | // << - insertion operator |
|  | // >> - extraction operator |

**Question 2**

| // Input a from the user and display in the console |  |
| --- | --- |
|  | // Add two numbers |
|  |  |
|  | #include <iostream> |
|  | using namespace std; |
|  |  |
|  | int main() |
|  | { |
|  | int n, m; |
|  | cout<<"Enter a number n: "; |
|  | // if we don't use "using namespace std", we would need to type---> std::cout<< |
|  | cin>>n; |
|  | cout<<"The number you typed is "<<n<<endl; |
|  | cout<<"Enter a number m: "; |
|  | cin>>m; |
|  | cout<<"The number you typed is "<<m<<endl; |
|  | cout<<"The sum of two numbers is: "<<m+n<<endl; |
|  | return 0; |
|  | } |

**Question 3**

| // WAP to find divisor and quotient of two numbers |  |
| --- | --- |
|  | #include <iostream> |
|  |  |
|  | using namespace std; |
|  |  |
|  | int main() |
|  | { |
|  | int a, b, r; |
|  | float d; |
|  | cout<<"Enter the two numbers: "<<endl; |
|  | cin>>a>>b; |
|  | d=float(a)/float(b); |
|  | r=a%b; |
|  | cout<<"Divisor of first number divided by second is: "<<d<<endl; |
|  | cout<<"Remainder of first number divided by second is: "<<r<<endl; |
|  | return 0; |
|  | } |

**Question 4**

|  |  |
| --- | --- |
| // question 4 - print prime numbers from 1 to 300 |  |
|  | #include <iostream> |
|  | using namespace std; |
|  |  |
|  | int main() |
|  | { |
|  | int count=0; |
|  | for(int n=2; n<=300; n++){ |
|  | int test=0; |
|  | for(int i=2; i<n; i++){ |
|  | if(n%i == 0){ |
|  | test=1; |
|  | break; |
|  | } |
|  | } |
|  | if(test==0){ |
|  | cout<<n<<" "; |
|  | count++; |
|  | } |
|  | } |
|  | cout<<"\n"<<count; |
|  | return 0; |
|  | } |
|  |  |
|  |  |

**Question 5**

| // question 5- temp from celsius to fahrenhiet |  |
| --- | --- |
|  | #include <iostream> |
|  | using namespace std; |
|  |  |
|  | int main() |
|  | { |
|  | int t; |
|  | cout<<"No of test cases: "; |
|  | cin>>t; |
|  | while(t--){ |
|  | float c,f; |
|  | cout<<"Enter temperature in celsius: "; |
|  | cin>>c; |
|  | f = 9\*c/5+32; |
|  | cout<<"Temp in fahrenhiet is "<<f<<endl; |
|  | } |
|  | return 0; |
|  | } |

**Question 6**

|  |  |
| --- | --- |
| // question 6- escape sequence |  |
|  | #include <iostream> |
|  | #include <iomanip> |
|  | using namespace std; |
|  |  |
|  | int main() |
|  | { |
|  | cout<<"Hello"<<"\n"<<"World"<<endl; |
|  | cout<<"Hello"<<"\t"<<"World"<<endl; |
|  | cout<<"Hello"<<"\b"<<"World"<<endl; |
|  | cout<<setw(12); // used to set width of a string |
|  | return 0; |
|  | } |
|  |  |

**Question 7**

| // question 7- using += and -= |  |
| --- | --- |
|  | #include <iostream> |
|  | #include <iomanip> |
|  | using namespace std; |
|  |  |
|  | int main() |
|  | { |
|  | int n, m; |
|  | cin>>n>>m; |
|  | m+=n; |
|  | cout<<"After using m+=n, m = "<<m<<endl; |
|  | n-=m; |
|  | cout<<"After using n+=m, n = "<<n<<endl;  } |
|  |  |

**Question 8**

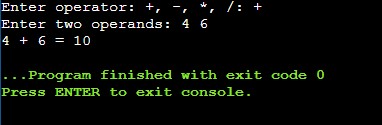
| // question 8- swapping two numbers using bitwise operator |  |
| --- | --- |
|  | #include <iostream> |
|  | using namespace std; |
|  |  |
|  | int main() |
|  | { |
|  | int a,b; |
|  | cout<<"Before Swapping: "<<endl; |
|  | cin>>a>>b; |
|  | a ^= b; |
|  | b ^= a; |
|  | a ^= b; |
|  | cout<<"After swapping: "<<a<<" "<<b; |
|  | return 0; |
|  | } |

**Question 9**

| #include <iostream> |  |
| --- | --- |
|  | using namespace std; |
|  |  |
|  | int main() |
|  | { |
|  | float fine=0; |
|  | int days; |
|  | cout<<"Enter number of days: "; |
|  | cin>>days; |
|  | if(days<=5){ |
|  | fine = 0.5 \* days; |
|  | } |
|  | if(days >=6 && days<=10){ |
|  | fine = 1 \* days; |
|  | } |
|  | if (days>10) |
|  | fine = 5\*days; |
|  | if (days > 30) |
|  | cout<<"Membership cancelled"; |
|  | return 0; |
|  | } |

**Question 10**

| // question 10 |  |
| --- | --- |
|  | #include <iostream> |
|  | using namespace std; |
|  |  |
|  | int main() |
|  | { |
|  | char op; |
|  | float num1, num2; |
|  |  |
|  | cout << "Enter operator: +, -, \*, /: "; |
|  | cin >> op; |
|  |  |
|  | cout << "Enter two operands: "; |
|  | cin >> num1 >> num2; |
|  |  |
|  | switch(op) { |
|  |  |
|  | case '+': |
|  | cout << num1 << " + " << num2 << " = " << num1 + num2; |
|  | break; |
|  |  |
|  | case '-': |
|  | cout << num1 << " - " << num2 << " = " << num1 - num2; |
|  | break; |
|  |  |
|  | case '\*': |
|  | cout << num1 << " \* " << num2 << " = " << num1 \* num2; |
|  | break; |
|  |  |
|  | case '/': |
|  | cout << num1 << " / " << num2 << " = " << num1 / num2; |
|  | break; |
|  |  |
|  | default: |
|  | cout << "Error! operator is not correct"; |
|  | break; |
|  | } |
|  |  |
|  | return 0; |
|  | } |

****