CAP444
OBJECT ORIENTED PROGRAMMING USING C++

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Control structure

- Conditional structure: if and else
- Selective structure: switch case
- Iteration structures (loops): while, do while, for
- Jump statements: break, continue, goto

if and else

```
if(condition)
{
//Statements(execute when condition true)
}
else
{
//Statements(execute when condition false)
}
```

Switch …case

For menu options:

```
switch(choice)
{
case 1:
break;
default:
}
```

What will be output?

```
#include <iostream>
using namespace std;
int main()
{
   int a=10;
  switch(a)
  {
     case 10:
     cout<<“Hi";
     case 11:
     cout<<“Hello";
  }
   return 0;
}
```

A. Hi
B. Hello
C. HiHello
D. None

While loop

The syntax of a while loop in C++ is −

```
while(condition)
 {
   statement(s);
}
```

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

int main ()
 {
     int a = 10;
     while( a < 20 )
     {
     cout<< a << endl;
     a++;
        }
   return 0;
}
```

Do While loop: at least one time will be execute

The syntax of a do while loop in C++ is −

```
do {
   statement(s);
}
while( condition );
```

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

int main ()
 {
     int a = 10;
  do
     {
      cout<< a << endl;
     a++;
    } while( a > 20 );
   return 0;
}
```

For loop:

The syntax of a for loop in C++ is –

```
for ( initialization; condition; increment )
{
   statement(s);
}
```

Jump statements: break, continue, goto

break: It breaks the current flow of the program at the given condition.

continue: It continues the current flow of the program and skips the remaining code at specified condition.

goto: It is used to transfer control to the other part of the program. It unconditionally jumps to the specified label.

What will be output?

```
#include <iostream>
using namespace std;
int main()
{
   for(int i=1;i<=5;i++)
   {
      if(i==3)
         continue;
      cout<<i;
   }
   return 0;
}
```

A. 12345
B. 123
C. 1245
D. None

go to Jumping Statement

```
#include <iostream>
 using namespace std;
 int main()
 {
 ineligible:
      cout<<"You are not eligible to vote!\n";
      cout<<"Enter your age:\n";
      int age;
      cin>>age;
      if (age < 18){
            goto ineligible;
      }
      else
      {
            cout<<"You are eligible to vote!";
      }
 }
```

Increment/Decrement Operator

++: Increment
++x
--: Decrement
--x

```
int main()
{
    int a=10;
    a++;
    cout<<a;
    return 0;
}
```

Any Query?