Conditional Statements
(Assignment Solutions)

Question 1 :

```cpp
int main() {
   int num;
   cin >> num;

   if (num > 0) {
     cout << "number is positive.\n";
   } else if (num < 0) {
     cout << "number is negative.\n";
   } else {
     cout << "number is zero.\n";
   }

   return 0;
}
```

Question 2 :

```cpp
int main() {
   int year;
   cin >> year;

   if (year % 400 == 0) {
     cout << year << " is a leap year.\n";
   } else if (year % 100 == 0) {
     cout << year << " is NOT a leap year.\n";
   } else if (year % 4 == 0) {
     cout << year << " is a leap year.\n";
   } else {
     cout << year << " is NOT a leap year.\n";
   }

   return 0;
}
```

Question 3 : x = 0(false) & y = 63

Question 4 : Output will be “Bye”.

Question 5 :

```cpp
int main() {
   int n;
   cout << "enter a 3 digit number : ";
   cin >> n;

   int num = n; //creating a copy

   int dig1 = num % 10;
   num /= 10;
   int dig2 = num % 10;
   num /= 10;
   int dig3 = num;

   int cubeSum = dig1*dig1*dig1 + dig2*dig2*dig2 + dig3*dig3*dig3;

   if (cubeSum == n) {
       cout << n << " is an Armstrong Number\n";
   } else {
       cout << n << " is NOT an Armstrong Number\n";
   }

   return 0;
}
```

Question 6 :

typedef keyword in C++ is used for aliasing existing data types, user-defined data types, and pointers to a more meaningful name.

Eg : *typedef int myInt*

This allows us to declare new integers using myInt, instead of int.

Macros can be of any type. Macros can even be any code block containing statements, loops, function calls etc. They are expanded by the preprocessor before compilation takes place.

const keyword is used to define the constant value that cannot change during program execution.