1) Discuss the meaning of:
   a) `cin`

   b) `cout`

   c) `endl`

   What does the program need to include to use them? Why?

2) Fill in the blanks for each of the following statements:
   a) __________ are used to document a program and improve its readability.
   b) A C++ statement that makes a decision is __________.
   c) Most calculations are normally performed by __________ statements.
   d) Every C++ program begins with the keyword __________.

3) Write a single C++ statement that accomplishes each of the following:
   a) Print the message “Enter two numbers”.

   b) Assign the product of some variables c and b to some variable a.

   c) Input three integer values from the keyboard into integer variables a, b and c.

4) State which of the following statements are true and which are false. If the statement is false, explain why.
   a) ______ C++ operators are evaluated from left to right.

   b) ______ The following are all valid variable names: _under_bar_, m98765432, t5, j7, her_sales, his_account, a, b, c, d2.

   c) ______ The statement `cout << “a = 5”` is a typical assignment statement in C++.

   d) ______ A valid C++ arithmetic expression with no parenthesis is evaluated from left to right.

   e) ______ The following are all invalid C++ variable names: 3g, 87, 67h2, h22, 2h.
5) What if anything prints out with each of the following C++ statements is performed? Assume x = 2 and y = 3.

a) cout << x;
b) cout << x + x;
c) cout << “x =”; 
d) cout << “x = “ << x;
e) cout << x + y << “ = “ << y + x;
f) z = x + y;
g) cin >> x >> y;
h) // cout << “x + y = “ << x + y;
i) cout << “\n”; 

6) Which of the following C++ statements contain variables whose values are replaced?

a) cin >> b >> c >> d >> e >> f;
b) p = I + j + k + 7;
c) cout << “variables whose values are replaced”;
d) cout << “a = 5”; 

7) Given the algebraic equation y = ax^3 + 7, which of the following, if any, are correct C++ statements for this equation?

a) y = a * x * x * x + 7;
b) y = a * x * x * (x + 7);
c) y = (a*x) * x * (x+7);
d) y = (a*x) *x * x + 7;
e) y = a * (x * x * x ) + 7;
f) y = a * x * (x * x + 7); 

8) State the order of evaluation of the operators in each of the following C++ statements and show the value of x after each statement is performed.

a) x = 7 + 3 * 6 / 2 – 1;
b) x = 2 % 2 + 2 * 2 – 2 / 2;

c) x = ( 3 * 9 * ( 3 + ( 9 * 3 / (3) ) ) );
9) Find the syntax errors in the following program (syntax errors are errors that the compiler will catch):

```cpp
#include <iostream>
int main()
{
    cout << “Please enter two numbers:”;
    cin << x, y;
    cout << “The sum of ” << x << “ and ” << y << “ is: ” << x + y << “n”;
}
```

10) Find at least three logic errors in the following program:

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

int main()
{
    int x1;
    int x2;
    float average;
    cout << “Please enter a number:”;
    cin >> x1;
    total = total + x1;
    cout << “Please enter another number:”; 
    cin >> x2;
    total = total + x2;
    average = total / 2;
    cout << “The average of the two numbers is “ << average << endl;
    return(0);
}
```
11) Suppose a C++ program contains the following code segment:

```cpp
    string fname, lname;
    int age;

    cout << “please enter your name: ”;
    cin >> fname >> lname;

    cout << “Please enter your age: “;
    cin >> age;
```

What is contained in the variables fname, lname, and age if the user enters the following inputs:

a) James Carter
   56

b) Lyndon Johnson
   49

c) Hodding Carter 3rd
   44

d) Richard M. Nixon
   62