Name: _____   Score: _____

> Working on these questions will help prepare for the final exam.

1. (5 points) True or False? Value-returning functions can only be used to return numeric values.

    A. True

    B. False

2. (5 points) True or False? The statement

    ```
    return 3 * alpha + 8;
    ```

    is valid in a value-returning function but not in a void function.

    A. True

    B. False

3. (5 points) Suppose the prototype of a function is as follows:

    ```
    void Calc(float beta );
    ```

    Then the variable beta is called

    A. an actual parameter.

    B. the data type of the parameter.

    C. a formal parameter.

    D. an argument.

    E. None of above

4. (5 points) Given the function prototype

    ```
    bool IsGreater( int, int );
    ```

    which of the following statements use valid calls to the `IsGreater` function? (The data types of the variables are suggested by their names.)

    A. `someBoolean = IsGreater(someInt, 8);`

    B. `if (IsGreater(5, someInt))`
        `intCounter++;`

    C. `while (IsGreater(inputInt, 23))`
        `cin >> inputInt;`

    D. b and c above

    E. a, b, and c above

5. (5 points) Given the function definition

```
bool IsZip(float someFloat )
{
  return (someFloat == 0.0);
}
```

what is the value of the expression `IsZip(2.4)` ?

6. (5 points) What happens if a value-returning function with the prototype

   ```
   float Average( int, int, int);
   ```

   is called by using the following statement? (someFloat is float variable and alpha and beta are int variables.)

   `someFloat = Average(alpha, beta);`

   A. The compiler issues a syntax error message with a compile error message.

   B. The function is executed, and the function returns a value to someFloat.

   C. The function is executed, and the function returns a value to alpha.

   D. The function is not executed, and the program halts with a run-time error message.

7. (5 points) The function heading

   `float TenToThePower(int n )`

   is for a function that returns 10.0 raised to any integer power. Which of the following statements stores into someFloat the value 10.0 raised to the power someInt?

   A. TenToThePower(someFloat, someInt);

   B. TenToThePower(someInt);

   C. TenToThePower(someInt) = someFloat;

   D. someFloat = TenToThePower(someInt);

   E. someInt = TenToThePower(someFloat);

8. (5 points) Given the function prototype

   `int Top( int, int );`

   which of the following statements contain valid calls to the Top function?

   A. `someInt = 4 + Top(oneInt, anotherInt);`

   B. `cin >> Top(oneInt, anotherInt);`

   C. `cout << Top(5, Top(3, 4));`

   D. a and c above

   E. a, b, and c above

9. (5 points) What is the appropriate function prototype for a function that receives a character letter grade and returns its integer equivalent on a four-point grading scale?

   A. void IntEquiv(char);

B. void IntEquiv(int);

C. int IntEquiv(char);

D. int IntEquiv(void);

E. char IntEquiv(int);

10. What is the output of the following program?

```
#include <iostream>

using namespace std;

void Try( int,  int & );

int x;
int y;
int z;

int main()
{
  x = 2;
  y = 3;
  z = 1;
  Try(y, x);
  cout << x << ' ' << y << ' ' << z << endl;
  return 0;
}

void Try( int a, int & b )
{
  int x;

  b = a + 2;
  a = a * 3;
}
```

10. (5 points) Given the function definition

```
int Trans(int alpha, int beta  )
{
  if (alpha > beta)
     return alpha + 10;
  else
     return 2 * beta;
}
```

what is printed by the following code?

```
cout << Trans(5, Trans(8, 4)) << endl;
```