CENTENNIAL COLLEGE

LAB 2

COMP-217 SEC- 001

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Instructions:

* This assignment is supposed to be completed individually.
* Add you name and student Id on top of the Lab 2 Doc.
* Please add correct answer under answer section for each question.
* Submit the file with correct responses in the submission box (LAB 2) under Assignments section.
* Each question has 1 mark each.
* Please pick up the answers as a/b/c/d from options (do not add complete text).
* Please add the answers sequentially as per the questions by editing this file.
* For submission name the file with following convention : **studentfirstname\_lastname\_lab2**

Q1: Specifying the order in which statements are to be executed in a computer program is called:

a. An algorithm.

b. Transfer of control.

c. Program control.

d. Pseudocode.

**ANS : C**

Q2: Which of the following is *true* of pseudocode?

a. It is executed by the computer.

b. It helps the programmer “think out” a program.

c. It includes declarations and all types of statements.

d. All of the above are false.

**ANS : B**

Q3: Pseudocode normally does *not* include:

a. Declarations.

b. Input/output.

c. Algorithms.

d. Control structures.

**ANS: A**

Q4: Which of the following *encompasses* the other three?

a. Sequence structure.

b. Repetition structure.

c. Control structure.

d. Selection structure.

**ANS: C**

Q5: In an activity diagram for an algorithm, what does a solid circle surrounded by a hollow circle represent?

a. Initial state.

b. Final state.

c. Action state.

d. Transition.

**ANS: A**

Q6: Which of the following is a double-selection statement?

a. if.

b. if…else.

c. do…while.

d. switch.

**ANS: B**

Q7: Which of the following is a *repetition* structure?

a. if.

b. if…else.

c. do…while.

d. switch.

**ANS: C**

Q8 [C++11]: Which of the following is *not* a keyword that was added to C++ in the new C++11 standard?

a. nullptr.

b. operator.

c. constexpr.

d. noexcept.

**ANS: B**

Q9: If grade has the value of 60, what will the following code display?

if (grade >= 60) {

cout << "Passed";

}

a. nothing.

b. 60

c. Passed

d. cout << "Passed";

**ANS: C**

Q10: The data type bool:

a. Can take on values true and false.

b. Can take on any expression as a value.

c. Can take on values -1, 0 or 1.

d. Can only be used in a selection statement.

**ANS: A**

Q11: The conditional operator (?:):

a. Is the only ternary operator in C++.

b. Is a unary operator.

c. Associates from left to right.

d. Accepts two operands.

**ANS: D**

Q12: Which of the following does *not* display correct if answer is equal to 7 and incorrect if answer is *not* equal to 7?

a. if (answer == 7) {  
 cout << "correct";  
}  
else {  
 cout << "incorrect";  
}

b. cout << answer == 7 ? "correct" : "incorrect";

c. cout << (answer == 7 ? "correct" : "incorrect");

d. answer == 7 ? cout << "correct" : cout << "incorrect";

**ANS: B**

Q13: A block:

a. Must contain exactly three statements.

b. Cannot contain declarations.

c. Is a compound statement.

d. Is represented by placing a semicolon (;) where a statement would normally be.

**ANS: C**

Q14: Which of the following statements about nested if…else statements is *true*?

a. An if…else statement may not be nested in another nested if…else.

b. Each if…else statement must contain only a simple condition.

c. In an if body, an inner if…else executes only if the outer if statement's condition is true.

d. The statement(s) in an inner if always execute(s) if its condition is true.

**ANS: D**

Q15: What is *wrong* with the following while loop?

while (sum <= 1000) {  
 sum = sum – 30;  
}

a. The parentheses should be braces.

b. There should be a semicolon after while (sum <= 1000).

c. sum = sum – 30 should be sum = sum + 30 or else the loop may never end.

d. None of the above.

**ANS: C**

Q16: How many times will the following loop print hello?

i = 1;   
  
while (i <= 10) {  
 cout << "hello";   
}

a. 0.

b. 9.

c. 10.

d. An infinite number of times.

**ANS: D**

Q17: An uninitialized local variable contains:

a. The value last stored in the memory location reserved for that variable.

b. No value.

c. A value of zero.

d. A randomly assigned value.

**ANS: B**

Q18: Using a while loop’s counter-control variable in a calculation after the loop ends often causes a common *logic* error called:

a. A fatal logic error.

b. A counter exception.

c. A syntax error.

d. An off-by-one error.

**ANS: D**

Q19: What is the final value of x after performing the following operations?

int x{21};

double y{6};

double z{14};

y = x / z;

x = 5.5 \* y;

a. 8.25.

b. 5.5.

c. 5.

d. 8.

**ANS: A**

Q20: Which operation does *not* take place in the following example?

int x{21};   
double y{6};

double z{14};

y = x / z;

x = 5.5 \* y;

a. Implicit conversion.

b. Promotion.

c. Explicit conversion.

d. Truncation.

**ANS: D**

Q21: Having a loop within a loop is known as:

a. Recursion.

b. Doubling up.

c. Nesting.

d. Stacking.

**ANS: C**

Q22 [C++11]: Which of the following statements initializes the unsigned int variable counter to 10?

a. unsigned int counter = 10;

b. unsigned int counter = {10};

c. unsigned int counter{10};

d. All of the above.

**ANS: D**

Q23 [C++11]: Which of the following is *true*?

a. Assigning a double value to an int does not lose any data.

b. For fundamental-type variables, list-initialization syntax prevents narrowing conversions that could result in data loss.

c. For fundamental-type variables, list-initialization syntax allows narrowing conversions that could result in data loss.

d. None of the above.

**ANS: B**

Q24: If x initially contains the value 3, which of the following sets x to 7?

a. x ++ 4;

b. x += 4;

c. x =+ 4;

d. x + 4 = x;

**ANS: B**

Q25: Assuming that x and y are equal to 3 and 2, respectively, after the statement x -= y executes, the values of x and y will be:

a. x: 5; y: 3

b. x: 3; y: -1

c. x: 3; y: 5

d. x: 1; y: 2

**ANS: A**

Q26: Which of the following will *not* increment c by 1?

a. c + 1;

b. c++;

c. ++c;

d. c += 1;

**ANS: A**

Q27: Assuming that x is equal to 4, which of the following statements will *not* result in y containing the value 5 after execution?

a. y = 5;

b. y = x++;

c. y = ++x;

d. y = x + 1

**ANS: B**

Q28: Which of the following operations has the highest precedence?

a. Postincrement.

b. Multiplication.

c. Addition.

d. Assignment.

**ANS: A**

Q29: Which of the following statements is *false*?

a. C++ requires all variables to have a type.

b. C++ fundamental types are portable.

c. ints may be 64 bits on some machines.

d. C++ programmers frequently have to write different versions of programs for different platforms.

**ANS: D**

Q30: All of the following are *true* of functions except:

a. They define specific tasks that can be used at many points in a program.

b. A function call must specify the name and arguments of the function.

c. The definition of a function usually is visible to other functions.

d. The implementation of a function is hidden from the caller.

**ANS: C**

Q31: Functions can:

a. Be used as building blocks to create new programs.

b. Return a result to the caller function.

c. Be reused any number of times.

d. Do all of the above.

**ANS: D**

Q32: Which of the following expressions returns the trigonometric sine of x?

a. sin(x).

b. sine(x).

c. trig\_sin(x).

d. trig\_sine(x).

**ANS: A**

Q33: Which of the following is *not* included in <cmath>?

a. pow.

b. floor.

c. ln.

d. log.

**ANS: C**

Q34: The function prototype

double mySqrt(int x);

a. Declares a function called mySqrt which takes an integer as an argument and returns a double.

b. Defines a function called double which calculates square roots.

c. Defines a function called mySqrt which takes an argument of type x and returns a double.

d. Declares a function called mySqrt which takes a double as an argument and returns an integer.

**ANS: A**

Q35: Using the following function definition, the parameter list is represented by:

A B (C)

{

D

}

a. A.

b. B.

c. C.

d. D.

**ANS: C**

Q36: The argument list of a function call must match, or be consistent with, the parameter list of the called function in all of the following details, *except:*

a. The number of arguments/parameters in the list.

b. The types of arguments/parameters in the list.

c. The names of arguments/parameters in the list.

d. The argument list and parameter list must match in all of the above details.

**ANS: C**

Q37: A function prototype does *not* have to:

a. Include parameter names.

b. Terminate with a semicolon.

c. Agree with the function definition.

d. Match with all calls to the function.

**ANS: A**

Q38: A function prototype can always be omitted when:

a. A function is defined before it is first invoked.

b. A function is invoked before it is first defined.

c. A function takes no arguments.

d. A function does not return a value.

**ANS: A**

Q39: Converting from type \_\_\_\_\_\_\_\_ to type \_\_\_\_\_\_\_\_ will result in the loss of data.

a. bool, char.

b. float, double.

c. int, char.

d. short, long.

**ANS: C**

Q40: Each standard library has a corresponding:

a. Function.

b. Variable type.

c. Header.

d. CD-ROM.

**ANS: C**