Weekly Test 2

Points: 54/100   Time: 01:12:40

1

Please Enter Your Full Name: *

Yibeltal Ayalneh Ejigu

✓ **Correct**   2/2 Points

2

What will happen if we compile and run the following program? *

```java
public class JavaApplication15 {
    public static void main(String[] ar
        int num1 = 20;
        int num2 = 0;
        System.out.println(num1/num2);
    }
}
```

○ Print 20

◉ ArithmeticException ✓

◯ Compilation error

◯ Print 0

✓ **Correct**   2/2 Points

3

Why are access modifiers used? *

◯ To restrict access of a class

◯ To restrict access of class members

◯ To totally deny access to class and its methods

◉ A & B ✓

✓ **Correct**   2/2 Points

4

--------------is the way in which objects of one class get the variables and methods of objects of another class. This includes the data and the methods. *

◯ Polymorphism.

◯ Encapsulation

◉ Inheritance ✓

◯ Abstraction.

✕ **Incorrect**   0/2 Points

5

_____ is a key feature of java technology responsible for freeing any memory that can be freed. *

○ Code Security

○ Garbage Collection thread   ✓

◉ Java Virtual Machine (JVM)

○ Bytecode

✓ **Correct**   2/2 Points

6

_____The way in which a class represents only the essential features of the set of objects which means it does not include background or extra details that are not relevant to the system *

○ Inheritance

○ Constructor

◉ Abstraction   ✓

○ Polymorphism

✓ **Correct**   2/2 Points

7

Given:- *

⦿ 12.56 ✓

◯ 4

◯ 10

◯ 2

✓ **Correct**   2/2 Points

8

____is type of Inheritance having one Parent, one or more intermediate and one child classes. *

◯ Single Inheritance

⦿ Multilevel Inheritance ✓

◯ Hierarchical Inheritance

◯ All of the above

✓ **Correct**   2/2 Points

9

_____are methods with the same *name signature* but either a different number of parameters or different types in the parameter list. *

⦿ Method Overloading ✓

◯   Method Overriding

◯   Inheritance

◯   None

✓ **Correct**   2/2 Points

10

Which one of the following is the correct way of importing GUI swing Library *

◉   import javax.swing.*   ✓

◯   import javax

◯   import swing

◯   import swing.javax

✓ **Correct**   2/2 Points

11

Which of the following statements is true about exception handling in Java: *

◉   try block can have many catch blocks but only one finally block   ✓

◯   A try block can have many catch blocks and many finally blocks

◯   A try block must have one finally block for each catch block

◯   A try block must have at least one catch block to have a finally block

✕ **Incorrect**   0/2 Points

12

_____ keyword is used to explicitly raise exceptions? *

◯ catch

◯ throw ✓

◯ throws

◉ raise

✕ **Incorrect**   0/2 Points

13

During handling exception what block is always executed, independently of any exception being raised? *

◉ throw

◯ catch

◯ Finally ✓

◯ throws

✓ **Correct**   2/2 Points

14

Suppose that the manager wants you to restrict the access level of an instance variable named pin to the customer only. Which access modifier you will use to

restrict pin variable to be accessed and assign only by the customer class. *

○ Protected

⦿ Private ✓

○ Public

○ Internal

✓ **Correct**   2/2 Points

15

A method that returns no value should be declared_____ *

○ Boolean

⦿ Void ✓

○ Undefined

○ None

✓ **Correct**   2/2 Points

16

A method that is invoked when an object is created is known as a _____ method *

○ Static

○ Instance

⦿ Constructor ✓

○ Setter

✕ **Incorrect**   0/2 Points

17

Which of the following file Stream used for reading data based on it's data type? *

◉ DataOutputStream

○ DataInputStream ✓

○ FileInputStream

○ BufferedInputStream

✕ **Incorrect**   0/2 Points

18

What is the name of the abstract base class for streams dealing with *character input*? *

◉ InputStream

○ OutputStream

○ Reader ✓

○ Writer

✓ **Correct**   2/2 Points

19

Which of the following is **not** the constructor of FileInputStream? *

○ FileInputStream(String filename)

◉ FileInputStream(File file, Boolean append)   ✓

○ FileInputStream(File file)

○ All of the above

✕ **Incorrect**   0/2 Points

20

Which of the following is true about the given code?

*

○ If the file.txt already exists the code will append hello world to the file.   ✓

○ If the file.txt already exists the code will override the file and write hello world.

◉ The code uses character-based stream for creating file named file.txt.

○ All

✕ **Incorrect**   0/2 Points

21

Which one of the following is not true about header file in C++? *

○ A program includes different programming elements such as built-in functions, classes, key-
words and more which are already defined in the standard C++ library.

○ Programmers must declare (or define) the predefined programming elements explicitly
after it declare or defines header file.   ✓

○ The standard headers files comprise information such as prototype, definition and return type
of library functions, the data type of constants and more.

⦿ Programmers can use their own custom header files whenever they want.

✓ **Correct**   2/2 Points

22

Which one of the following is valid about namespace in C++? *

○ A namespace permits grouping of various entities like classes, objects, functions, and various
C++ tokens, etc. under a single name.

○ Any user can create separate namespaces of its own and can use them in any other program.

○ namespaces can make use of similar names of the entities. This will avoid the compile-time
error that may be present because of the identical-name conflicts.

⦿ namespaces must use of different names of the entities. This will avoid the compile-time
error that may be present because of the identical-name conflicts.   ✓

✓ **Correct**   2/2 Points

23

Look these code segments carefully and identify the invalid statements
        int main(){
                } *

○ The main () is a startup function that starts the execution of a C++ program.

○ The compiler executes all the instructions written within the opening and closing curly braces'
{}' that enclose the body of the main ( ).

○ int main () in C++ returns an int value to the operating system. Thus, main () must end with the return 0 statement.

◉ void main () in C++ returns an int value to the operating system. Thus, main () must end with the return 0 statement.   ✓

✕ Incorrect   0/2 Points

24

Which one of the following is true about C++ programming? *

○ C++ is an object-oriented programming language

◉ C++ is a procedural programming language

○ C++ supports both procedural and object-oriented programming language   ✓

○ C++ is a functional programming language

✓ Correct   2/2 Points

25

Which one is true about the entry-controlled condition in looping statements *

○ In entry controlled the condition appears at the end of the statement

◉ In entry controlled the condition appears at the beginning of the statement   ✓

○ Do while loop is an example of an entry-controlled statement.

○ For loop is an example of exit controlled statements.

✗ **Incorrect**   0/2 Points

26

Which one is odd statements about valid identifiers in C++? *

○ An identifier is needed to name a variable (or any other entity in function or a class).   ✓

◉ An identifier must begin with a number or letter or underscore.

○ An identifier can be a reserved keyword or a reserved literal (e.g.,int, if, else, for).

○ Identifiers are case-insensitive eg. a swe is Swe, and also is a SWE.

✓ **Correct**   2/2 Points

27

The data expression used in a switch statement must have an *

○ int

○ float

○ char

○ A and B

◉ A and C   ✓

✗ **Incorrect**   0/2 Points

28

Which one of the following not valid about the "Rule of Thumb "under usage of datatype? *

◯   Use int for integer and double for floating point numbers.

⦿   Use byte, short, long and float only if you have a good reason to choose that specific precision.

◯   Use signed int for counting and indexing. This is because signed integer type is precise and more efficient in operations.   ✓

◯   Use a floating-point type only if the number contains a fractional part.

✓ **Correct**   2/2 Points

29

Look the following code segments and identify correct statements about it *

◯   Variable b in the first set of curly brackets is not the same as the b in the second set, and both of these "hide" the b outside.

◯   These variables "live" in their own bit of code and do not interfere with each other. They are local or have bounded scope.

◯   Restricting the scope of variables as far as possible in this way is very good practice and will help reduce the likelihood of bugs. It is recommended and all good programmers will do this as far as possible.

⦿   The program cannot be executed due to error redeclaring the variable is not allowed.   ✓

✓ **Correct**   2/2 Points

30

A looping statement that is used when the program requires that the loop be executed at least once even conditions evaluated as false. *

○ for

○ while

◉ do while ✓

○ if

✓ **Correct**   2/2 Points

31

which one of the following is not correct about function overloading? *

○ If two or more different functions can have the same name and the prototype of their arguments are different.

◉ You cannot give the same name to more than one function, since it becomes an error redeclaring function again and again.   ✓

○ Function overloading applied if they have the same data type but a different number of arguments.

○ Function overloading applied if they have the same number argument but different data types.

✓ **Correct**   2/2 Points

32

Variables inside the parenthesis of function declarations have _____ level access.

*

◉ Local ✓

○ Global

○ Module

○ Universal

✓ **Correct**   2/2 Points

33

What does the following statement mean?
  *int (*fp) (char*);* *

○ pointer to a pointer

○ pointer to an array of chars

◉ pointer to function taking a char* argument and returns an int ✓

○ function taking a char* argument and returning a pointer to int

✕ **Incorrect**   0/2 Points

34

What are the mandatory parts of a function declaration? *

○ return type, function name ✓

◉ return type, function name, parameters

○ both a and b

○ none of the mentioned

✕ **Incorrect**   0/2 Points

35

What is the purpose of the "new" keyword in C++? *

⦿ To create a new object

○ To allocate memory dynamically ✓

○ To call a constructor

○ To delete an object

✓ **Correct**   2/2 Points

36

A process of exciting in C++ programs typically contain references to functions and data defined elsewhere, such as in the standard libraries. The object code produced by the C++ compiler typically contains "holes" due to these missing parts. *

○ Editing

○ Preprocess

⦿ Linking ✓

○ Loading

✕ **Incorrect**   **0/2 Points**

37

A step-by-step procedure written by human languages to defines a set of instructions that must be carried out in a specific order to produce the desired result. *

◯ Algorithm ✓

◯ Pseudocode

◉ Flowchart

◯ Block diagram

✕ **Incorrect**   **0/2 Points**

38

Which one of the following is incorrect about algorithms? *

◯ Algorithms are generally developed independently of underlying languages, which means that an algorithm can be implemented in more than one programming language.

◯ An algorithm is a set of commands that must be followed for a computer to perform calculations or other problem-solving operations.

◉ An algorithm is a finite set of instructions carried out in a specific order to perform a particular task.

◯ Algorithm is the entire program or code; it is detail explanations solutions to a problem represented as an informal description in the form of a flowchart or pseudocode   ✓

✓ **Correct**   **2/2 Points**

39

The algorithm should have a limited number of instructions, i.e., the instructions should be countable. *

◯ Effectiveness

◉ Finiteness ✓

◯ Unambiguity

◯ Language independent

✓ **Correct**   2/2 Points

40

Finding all possible solutions to a problem and then selecting the best one, will terminate if the best solution is known. *

◉ Optimizing ✓

◯ Sacrificing

◯ Robustness

◯ Maintainability

✗ **Incorrect**   0/2 Points

41

What are the outputs of following code segments?

*

◉ ABCE

○ ABCDE

○ ABC   ✓

○ ABE

✕ **Incorrect**   0/2 Points

42

What is the output of the following source code

*

○ 10   ✓

○ 20

◉ compile time error

○ none of the mentioned

✕ **Incorrect**   0/2 Points

43

What is the output of the following source code?
What is the value returned by the function call fun (2)
*

○ 4

○ 8

○ 16   ✓

◉ Runtime Error

✓ **Correct**   2/2 Points

44

What is the difference between delete and delete[] in C++? *

○ delete is used to delete normal objects whereas delete[] is used to pointer objects

○ delete is a keyword whereas delete [] is an identifier

◉ delete is used to delete single object whereas delete[] is used to multiple (array/pointer
   of) objects   ✓

○ delete is syntactically correct but delete[] is wrong and hence will give an error if used in any
   case.

✗ **Incorrect**   0/2 Points

45

Which of the following best describes the useful criterion for comparing the efficiency of algorithms? *

○ Time

◉ Memory

○ Both of the above   ✓

○ None of the above

✕ **Incorrect**   0/2 Points

46

Which of the following gives the memory address of the first element in array? *

◉ array[0];

◯ array[1];

◯ array(2);

◯ array;   ✓

✕ **Incorrect**   0/2 Points

47

Look the following code segments and identify correct statements about the following syntax?

*

◯ startcommand instruction is carried out once.   ✓

◉ startcommand instruction is carried out every time loop condition evaluated as true.

◯ any variables declared in the startcommand is global to the program.

◯ The block statements can be executed at least once even condition becomes false.

✓ **Correct**   2/2 Points

48

Suppose you are given the following function declaration and choose the best answer:
int divide (int a, int b = 7){}
  *

○ Variable b is of integer type and will always have the value 7

○ Variables a and b are integer type and the initial value of both variables is 7

○ Variable b is the global scope and will have a value 7

● Variable b will have a value of 7 if not specified when calling the function.   ✓

✕ **Incorrect**   0/2 Points

49

Look the following code segments and identify incorrect statements about the following syntax?

  *

○ We have a structure type called product with two members: weight and price, each of a different fundamental datatype though the members datatype must not exceed two.   ✓

● We used name of the structure type (product) to declare three variables of that type: apple, banana and lemon as we would have done with any fundamental data type.

○ We can instantiate many variables, like mango, apple, banana and lemon from a single structure type (product).

○ Once we declared our three variables of a determined structure type, we can operate directly with their members via a dot (.) eg. apple.weight,apple.price;

✕ **Incorrect**   0/2 Points

50

What is the output of the following code snippet?

*

○ 0 1 ✓

◉ 1 0

○ 1 1

○ 0 0

✕ **Incorrect**   0/2 Points

51

The following statements are true about array initialization except? *

○ A) It is possible to initialize the elements of the array during defining arrays
int nums[3] = {5, 10, 15};

○ B) When initializing arrays, it is mandatory to write the array size in the square brackets.   ✓
int nums[3] = {5, 10, 15};

○ C) When the number of values in the initializer is less than the number of elements, the re-
maining elements are initialized to zero   int nums[5] =
{5, 10, 15};

◉ D) When a complete initializer is used, the array dimension becomes redundant, because the
number of elements is implicit in the initializer.   int nums[5] = {5, 10, 15};