**1.** What is meant by term *promt*

It is a message that encourages user to enter some text.

**2.** Which operator do use to read into a variable.

operator >> (get from) specifies where the input goes

**3.** If you want the user to input an integer value into your program for a variable named **number**, what are two lines of code you could write to ask the user to do it and to input the value into your program.

cout << “Please, enter the number\n”;

cin >> number;

**4.** What is \n called and what purpose does it serve?

The symbol of new line. The text after \n starts on the new line.

**5.** What terminates input into string?

Whitespace - space, newline and tab characters. So each word followed by whitespace will be terminated into string.

**6.** What terminates input into integer?

Whitespace - the same as with string.

**7.** How would you write

cout << "Hello, ";

cout << first\_name;

cout << "!\n";

as a single line of code?

cout << “Hello, “ << first\_name << “!\n”;

**8.** What is an object?

An object is part of memory where we store the data

**9.** What is a literal?

Literal is a representation of fixed value in source code.

**10.** What kinds of literals are there?

Sequence of digits denotes an integer. Sequence of digits with floating point denotes a floating-point value. A single character enclosed in single quotes denotes a character. Sequence of symbols enclosed in double quotes denotes a string. And false or true statement denotes a boolean value.

**11.** What is a variable?

Variable is a named object that holds data which is being interpreted according the type of variable.

**12.** What are typical sizes for a char, an int, and a double?

x32 char - 1 byte, int - 4 bytes, double - 8 bytes

**13.**

**14.** What is the difference between = and ==?

= means association of some value to variable where == means “equal to” and used in comparison of two variables or values

**15.** What is a definition?

It is a statement that introduces a new name to a program and sets aside the memory for a variable.

**16.** What is an initialization and how does it differ from an assignment?

We initialize variable by introducing her name and type to program. By assignment we can give variable a new value with the use of “=” operator.

**17.** What is string concatenation and how do you make it work in C++?

When we need to get the values of two string variables together in the first or another variable we can use concatenation. We use “+” character to concatenate the strings.

**18.** Which of the following are legal names in C++? If a name is not legal, why not?

This\_little\_pig // OK This\_1\_is fine //Space is not allowed 2\_For\_1\_special // The name cannot begin with a number latest thing // Space is not allowed the\_$12\_method //Special symbols are not allowed \_this\_is\_ok //We can’t use it because names with underscore at the beginning are reserverd by the system MiniMineMine //OK number //OK correct? //Special symbols are not allowed

**19.** Give five examples of legal names that you shouldn’t use because they are likely to cause confusion.

The name of types - double, int(integer), string, char, boolean

**20.** What are some good rules for choosing names?

The name has to clearly represent the purpose of the variable and don’t be too long

**21.** What is type safety and why is it important?

Type safety - is when objects are used according their types. It is extremely important because the violation of type safety can lead to errors in program and fails of hardware.

**22.** Why can conversion from double to int be a bad thing?

Because int doesn’t support a float point. Therefore the floating number will be cutted. Also, double can contain much more data (8 bytes) than integer (4 bytes) so in some cases the integer won’t be able to hold big number from double variable.

**23.** Define a rule to help decide if a conversion from one type to another is safe or unsafe.

If the type allows to hold the data of that size it is safe. Also, there have to be only the data that is acceptable by the type we are converting to (for example floating-point number to integer).

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