FPGA Concept: Introduction: Quiz Solution   www.highlevel-synthesis.com

1.

A function in C/C++ is a block of code that performs a specific task. The function syntax is as follows

```
return_type function_name (arguments_list)
{
  function_body
}
```

The function consists of four main parts:

a- Return type
b- Function name
c- Arguments list
d- Function body

2.

The function arguments are a mechanism to receive or send data in a function. A function can receive a copy of the value in a variable, which is referred to as call-by-value, or it can receive the variable itself, which is called call-by-reference. Therefore, arguments in a function can be defined as call-by-value or call-by-reference variables.

Whereas a simple variable declaration in the argument makes that accessible through call-by-value mechanism, defining a call-by-reference variable requires explicit declaring by using * or & before the variable.

Notice that using call-by-reference can be used for receiving or sending out data in a function.

Examples:

int add-sub(int a, int b, int *sub) {	int add-sub(int a, int b, int &sub) {
*sub = a - b;	sub = a - b;
return a+b;	Return a+b;
}	}