Function objectives

SLNO	QUESTIONS
1	**What is a function?**
	A function is set of statements which are encapsulated together to perform a specific task. They are seated separately in a file, which are compiled independently and loaded in memory when they are required.
2	**What is the use of library function?**
	Library functions are the wrappers of the system calls, which are seated in a separate file called share object file. They are loaded and unloaded in memory depending on the program.
3	**What is the difference between library function and system calls?**
	Library functions are implemented in user space memory, but system calls are implemented in kernel space memory. All the library functions are finally converted into system calls.
4	**What is the disadvantage of writing the function body below or above the main function?**
	If we write the function body below or above the main function in the same file, the function body cannot be utilized in other programs
5	**How can we find the size of the function?**
	Size of the function is calculated as follows: (a) Size of local automatic variables used in function + (b) Size of the actual parameters used in the function + (c) Size of the next address of the function + (d) Size of the previous address of the function
6	**What is function recursion?**
	When a function is called to itself it is known as function recursion.
7	**Which data structure is implemented in function recursion?**
	Stack data structure is implemented in function recursion
8	**What is the difference between return and exit?**
	'Return' and 'exit', both statements are used to terminate the child process and send a signal to parent process. Return is a keyword, whereas exit is a function.
9	**What is the major difference between stdout and stderr?**
	If a program uses stdout, the output of the program can be redirected. But when the program uses stderr, the output of the program cannot be redirected
10	**What is the major difference between stream and buffer?**
	Buffer is a block of memory allocated by operating system in kernel space for IO operations. But stream is a mechanism which establishes the connection between a buffer and a device.
11	**When is a "copy of the variable" created?**
	There are two different types of function calling conventions, such as 'called by value' and 'called by address'. Copy of a variable is created when it is called by value.
12	**What is the difference between void main and int main?**
	In case of void main the child process does not send a signal to parent process, but in case of int main the child process sends a signal to its parent process.
13	**How do we access a variable in other functions without parameter technique?**

	If a variable is defined in one function, it cannot be accessed in other functions. To access the variable value in other functions we take the help of stack. See the example below:
	Main()
	{
	Int x=90;
	Show();
	}
	Int show()
	{
	Int y;
	Printf("%d ",*(&y+3));

	}
14	**What is the difference between 'call by value' and 'call by address'?**
	Both are used for function calling convention. But the major difference between these is: *Call bye value*: If any modification done in calling function does not affect caller function, it is call by value. *Call bye address*: if any modification done in calling function affects caller function, it is call by address.
15	**What is the difference between static library and dynamic library?**
	When the program is linked with static library, all the symbols present in static library may be used or may not be used, but all are copied to the program and all symbols are resolved at linking time. But when the program is linked with dynamic library, all the symbols present in the dynamic library are not copied; only those symbols are used which are copied and they are resolved at run time of the program.