1.	How do you declare a string in c that can store up to 50 characters?			
	A)	string str[50];	B)	char str[50];
	C)	char[] str="50";	D)	string str=50;
2.	How do you access the last element of an array arr with n elements in C			
	A)	arr[n];	B)	arr[n-1];
	C)	arr[n+1];	D)	arr[last];
3.	Assuming int is of 4bytes, what is the size of int arr[15];?			
	A)	15	B)	19
	C)	11	D)	60
4.	To access the third element of an array named 'arr', you would use:			
	A)	arr[2]	B)	arr[3]
	C)	arr(2)	D)	arr(3)
5.	Which of the following is a valid declaration for a 2D array?			
	A)	int a[][] = {{1,2}, {3,4}};	B)	int a[2,2] = {{1,2}, {3,4}};
	C)	int a[2][2] = {{1,2}, {3,4}};	D)	array a[2][2] = {{1,2}, {3,4}};
6.	Which of the following correctly initializes an array of size 5 with all values set to 0?			
	A)	int arr[5] = {0};	B)	int arr[5];
	C)	int arr[5] = {};	D)	int arr[] = {0,0,0,0,0};
7.	What is the index of the first element in an array?			
	A)	0	B)	1
	C)	First	D)	Start
8.	In an array declaration int arr[5] = {1, 2, 3};, what will be the value of arr[3]?			
	A)	1	B)	2
	C)	3	D)	0
9.	Which statement about arrays in C is false?			
	A)	Arrays can store multiple values of different data types.	B)	The size of an array must be specified at the time of declaration.
	C)	The elements of an array are stored in contiguous memory locations.	D)	The array index starts from 0.
10.	How would you declare a two-dimensional integer array of 3 rows and 4 columns?			
	A)	int arr[3, 4];	B)	int arr[3][4];
	C)	int[3][4] arr;	D)	int arr[ ][ ] = {3, 4};

11.	What will be the output of the following C code?
	
	#include <stdio.h> int
	
	main()
	
	{
	
	int ary[2][3];
	
	ary[][] = {{1, 2, 3}, {4, 5, 6}};
	
	printf("%d\n", ary[1][0]);			

	}			
	A)	Compile time error	B)	4
	C)	1	D)	2

12.	What will be output of the following C code where we copy an array 'a' into array 'b' and then the array 'b' into 'a'?
	
	#include<stdio.h>
	
	#include<string.h> main()
	
	{
	
	char a[] = "hell";
	
	char b[] = "hello";
	
	strcpy(b, a);
	
	strcpy(a, b); printf("%s, %s", a, b);
	
	}			

	A)	hello, hello	B)	hell, hell
	C)	hell, hello	D)	Runtime Error
13.	What is the maximum number of dimensions an array in C may have?			
	A)	Two	B)	eight
	C)	sixteen	D)	Theoretically no limit. The only practical limits are memory size and compilers
14.	Array is an example of_____type memory allocation.			
	A)	Compile time	B)	Run time
	C)	Both A and B	D)	None of the above
15.	The parameter passing mechanism for an array is			
	A)	call by value	B)	call by reference
	C)	call by value-result	D)	None of the above

1.	In C, what is a function primarily used for?			
	A)	Decision making	B)	Variable declaration
	C)	Code organization and reusability	D)	Printing output
2.	What is the purpose of the return statement in a C function?			
	A)	To end the function and return control to the calling function, optionally returning a value.	B)	To repeat the function.

	C)	To print a value to the console.	D)	To declare a new function.
3.	If a function in C does not return a value, what should be its return type?			
	A)	void	B)	int
	C)	float	D)	null
4.	In C, what happens if two variables with the same name are declared in different scopes (e.g., one global and one local)?			
	A)	The program will result in a compilation error.	B)	The global variable will be accessible throughout the program.
	C)	The local variable will shadow the global variable within its scope.	D)	Both variables will be accessible, leading to undefined behavior.
5.	Which of the following statements is true regarding function prototypes in C?			
	A)	A function prototype is required for every function in a C program.	B)	A function prototype provides a forward declaration of a function to the compiler.
	C)	A function prototype can be omitted if the function is defined before its first use.	D)	A function prototype must include the body of the function.

6.	What will be the output of the following C code?
	#include <stdio.h>
	void func(int x) {
	x = 10;
	}
	int main()
	{
	int x = 5;
	func(x);
	printf("%d", x);
	return 0;
	}			

	A)	10	B)	5
	C)	Compilation error	D)	Undefined behavior
7.	Arguments passed to a function in C language are called ____			
	A)	Formal arguments	B)	Actual arguments
	C)	Definite arguments	D)	Ideal arguments
8.	A function which calls itself is called a_____function.			
	A)	Self Function	B)	Auto Function
	C)	Recursive Function	D)	Static Function
9.	What is the difference between formal and actual parameters in C?			

	A)	Formal parameters are used in function definition, actual parameters in function call	B)	There is no difference
	C)	Actual parameters are used in function definition, formal parameters in function call	D)	Formal parameters are variables, actual parameters are values
10.	What are global variables in C?			
	A)	Variables declared within a function	B)	Variables that can be accessed by any function in the program
	C)	Constants	D)	Variables that store functions
11.	Which of the following is a correct way to define a function in C?			
	A)	int sum(int a, int b) { return a + b; }	B)	function sum(int a, int b) { return a + b; }
	C)	sum(int a, int b): int { return a + b; }	D)	int sum(a, b) { return a + b; }
12.	Which keyword is used to indicate that a function does not return a value in C?			
	A)	null	B)	void
	C)	none	D)	empty
13.	What is a function in C?			
	A)	A named block of code designed to perform a specific task	B)	A variable used to store data
	C)	A header file	D)	A type of operator
14.	What is the scope of a local variable in C?			
	A)	Throughout the program	B)	Within the block where it is declared
	C)	Within all functions of the same file	D)	Global
15.	How are arguments passed to functions in C?			
	A)	By reference	B)	By value
	C)	Either by reference or by value	D)	By name

1.	In Call by Value, which of the following statements is true?			
	A)	The function modifies the actual parameter.	B)	A copy of the actual parameter is passed.
	C)	The function receives the address of the parameter.	D)	Call by Value is more efficient for large data structures.
2.	In Call by Reference, the function works with:			
	A)	A copy of the parameter	B)	The actual value of the parameter
	C)	The address of the actual parameter	D)	A duplicate variable
3.	Which of the following is a disadvantage of Call by Value?			
	A)	Changes made to the parameter affect the original value.	B)	It is less efficient for large data structures.
	C)	It is prone to side effects.	D)	It is not used for primitive data types.
4.	What is one of the main advantages of Call by Reference?			
	A)	It avoids unintended side effects.	B)	It works only with primitive data types.
	C)	It allows modification of the original variable.	D)	It requires more memory.
5.	Which storage class is the default for local variables in C?			
	A)	Auto	B)	Register

	C)	Static	D)	Extern
6.	Which storage class suggests storing the variable in the CPU register for faster access?			
	A)	Auto	B)	Register
	C)	Static	D)	Extern
7.	A static variable declared inside a function in C:			
	A)	Retains its value between function calls.	B)	Is destroyed at the end of the function.
	C)	Can only be accessed from other files.	D)	Is always stored in the CPU register.
8.	Which storage class would you use to share a variable across multiple files in C?			
	A)	Auto	B)	Register
	C)	Static	D)	Extern
9.	Which of the following is a property of an "extern" variable?			
	A)	Visible only in the file where it is defined	B)	Visible throughout the program, even across files
	C)	Retains its value between function calls	D)	Must be stored in a register
10.	The lifetime of a variable declared with the `auto` storage class is:			
	A)	The entire program.	B)	Only within the block or function where it is defined.
	C)	Across multiple files.	D)	None of the above.
11.	Which of the following is required for a recursive function?			
	A)	A condition that forces termination	B)	A register variable
	C)	A variable declared with `extern`	D)	A global variable
12.	A function that calls itself is known as a:			
	A)	Static function	B)	Recursive function
	C)	Inline function	D)	Register function
13.	Which of the following is an example of a base case for a recursive factorial function?			
	A)	n = n - 1	B)	return n * factorial(n - 1)
	C)	if (n == 0) return 1;	D)	n++;
14.	Recursive functions are most useful when:			
	A)	The problem can be divided into smaller sub-problems of the same type.	B)	The problem cannot be broken down.
	C)	The problem involves global variables.	D)	The function needs to run infinitely.
15.	Which of the following correctly describes the factorial function for n = 3?			
	A)	3! = 3 * (3 - 1)!	B)	3! = 3 * 2 * 1
	C)	3! = (3 - 1) * (3 - 2)	D)	3! = 3 + 2 + 1

1.	**Which of the following is the correct way to declare and initialize a string in C?**			
	A)	char str = "Hello";`	B)	char str[] = "Hello";
	C)	char str[6] = "Hello";	D)	string str = "Hello";`
2.	Which function is used to concatenate two strings in C?			
	A)	strcpy()	B)	strcat()

	C)	strcmp()	D)	strrev()
3.	What does the `strcmp()` function return when two strings are equal?			
	A)	0	B)	1
	C)	-1	D)	The length of the string
4.	Which function is used to copy a string from one location to another?			
	A)	strcpy()	B)	strcat()
	C)	strlen()	D)	strrev()
5.	What is the purpose of strncat() function?			
	A)	To concatenate a fixed number of characters from one string to another	B)	To compare a fixed number of characters from two strings
	C)	To copy a fixed number of characters from one string to another	D)	To reverse a string
6.	What is the difference between strcat() and strncat()?			
	A)	strcat() copies characters, while strncat() concatenates characters	B)	strcat() appends a string, while strncat() appends a fixed number of characters
	C)	strcat() compares strings, while strncat() copies strings	D)	There is no difference; they are identical
7.	Which function changes all the characters of a string to lowercase?			
	A)	strupr()	B)	strrev()
	C)	strlwr()	D)	strcpy()
8.	What does putchar() function do?			
	A)	Reads a character from input	B)	Prints a string to the output
	C)	Prints a single character to the output	D)	Reads a string from input
9.	What does strrev() do?			
	A)	Reverses a string	B)	Converts a string to uppercase
	C)	Concatenates two strings	D)	Compares two strings

10.	What will be the output of the following code?
	#include <stdio.h>
	#include <string.h>
	
	int main() {
	char str1[20] = "Hello";
	char str2[] = "World";
	strcat(str1, str2);
	printf("%s\n", str1); return 0;
	
	}			

	A)	HelloWorld	B)	Hello World
	C)	WorldHello	D)	Hello
11.	Given the following code snippet, what will strlen(str) return? #include <stdio.h> #include <string.h>			

```
int main() {
    char str[] = "OpenAI";
    printf("%d", strlen(str));
    return 0;
}
```

	A)	6	B)	7
	C)	5	D)	4

12. What will be the result of the following code?

```
#include <stdio.h>
#include <string.h>
int main() {
    char str1[20] = "apple";
    char str2[] = "apple";
    int result = strcmp(str1, str2);
    printf("%d\n", result);
    return 0;
}
```

	A)	0	B)	1
	C)	-1	D)	5

13. Which of the following lines of code will correctly copy a string?

	A)	strcpy("Hello", str1);	B)	strcpy(str1, "Hello");
	C)	copy(str1, "Hello");	D)	strncpy(str1, "Hello", 5);

14. What will the following code print?

```
#include <stdio.h>
#include <ctype.h>

int main() {
   char str[] = "hello";
   strupr(str);
    printf("%s\n", str);
   return 0;
    }
```

	A)	HELLO	B)	hello
	C)	HELlo	D)	Compilation error

15. What will be the output of the following code?

```
#include <stdio.h> int main()
{
    char c;
    c = getchar();
     putchar(c);
    return 0;
```

	}			
	A)	Echoes the character entered by the user	B)	Prints the string "c"
	C)	Prints a newline	D)	Prints the integer value of the character entered