

Chapter 9: String Handling and I/O Functions

A character array can be used to store a string, since it is a sequence of characters. The array `char my_name[10];` can store a string of 9 characters. One location will be used to store `'\0'` (null character) as string terminator.

A string can be input using the statement:

```
cin >> my_name;
```

This statement can store a string without any white space (that is, only one word). If we want store strings containing white spaces (strings having more than one word) we can use `gets()` function, `getline()` function or `get()` function.

Similarly to display string data we can use `puts()` function and `write()` function.

There are functions to perform input output operation on characters also. The table shows them:

Type of data	Console functions (stdio.h header file)	Stream functions (iostream.h header file)	Operation
Character functions	<code>getchar()</code>	<code>cin.get()</code>	Character input
	<code>putchar()</code>	<code>cout.put()</code>	Character output
String functions	<code>gets()</code>	<code>cin.getline()</code> , <code>cin.get()</code>	String input
	<code>puts()</code>	<code>cout.write()</code>	String output

Questions from Previous Years' Question Papers

1. Consider the following C++ program.

```
#include<iostream>
using namespace std;
int main()
{
    char str[20];
    cin>>str;
    cout<<str;
}
```

What will be the output if we input the string "Vande Mataram". Justify your answer.

(2) (July 2017)

2. What is the advantage of using `gets()` function in C++ program to input string data? Explain with an example.

(2) (March 2017)

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3. a) Write the declaration statement for a variable 'name' in C++ to store a string of maximum length 30. (1)

b) Differentiate the statements `cin>>name;` and `gets (name) ;` for reading data to the variable 'name'. (1) (Sept. 2016)

4. Consider the following C++ statements:

```
char word[20];  
cin>>word;  
cout<<word;  
gets (word) ;  
puts (word) ;
```

If the string entered is "HAPPY NEW YEAR", predict the output and justify your answer. (2) (March 2016)

5. a) `my_name` is a variable contains a string. Write two different C++ statements to display the string. (2)

b) function is used to copy a string to another variable. (1) (Sept. 2015)

6. Read the following code:

```
char str[30];  
cin >> str;  
cout << str;
```

If we give the input "Green Computing", we get the output "Green". Why is it so? How can you correct that? (2) (March 2015)



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