

## String related problems (Total 15 questions)

SL	Problem statement	Difficulty levels						
1.	Write a program in C to find the length of a string without using any library function.	*						
	<table><tr><th>Sample Input</th><th>Sample Output</th></tr><tr><td>“My name is andy”</td><td>15</td></tr><tr><td>“Abc 123 7&amp;*&amp;*”</td><td>13</td></tr></table>		Sample Input	Sample Output	“My name is andy”	15	“Abc 123 7&*&*”	13
	Sample Input		Sample Output					
	“My name is andy”		15					
	“Abc 123 7&*&*”		13					
2.	Write a program in C to concatenate two strings without using any library function.	*						
	<table><tr><th>Sample Input</th><th>Sample Output</th></tr><tr><td>“My name ” “is andy”</td><td>“My name is andy”</td></tr><tr><td>“123abc” “*A*B”</td><td>“123abc*A*B”</td></tr></table>		Sample Input	Sample Output	“My name ” “is andy”	“My name is andy”	“123abc” “*A*B”	“123abc*A*B”
	Sample Input		Sample Output					
	“My name ” “is andy”		“My name is andy”					
	“123abc” “*A*B”		“123abc*A*B”					
3.	Write a program in C to count how many vowels are there in a string.	*						
	<table><tr><th>Sample Input</th><th>Sample Output</th></tr><tr><td>“My name is andy”</td><td>4</td></tr><tr><td>“Are you READY yet?”</td><td>7</td></tr></table>		Sample Input	Sample Output	“My name is andy”	4	“Are you READY yet?”	7
	Sample Input		Sample Output					
	“My name is andy”		4					
	“Are you READY yet?”		7					
4.	Write a program in C to count the number of words in a string.	*						
	<table><tr><th>Sample Input</th><th>Sample Output</th></tr><tr><td>“My name is andy”</td><td>4</td></tr><tr><td>“Abc 123 7&amp;*&amp;*”</td><td>3</td></tr></table>		Sample Input	Sample Output	“My name is andy”	4	“Abc 123 7&*&*”	3
	Sample Input		Sample Output					
	“My name is andy”		4					
	“Abc 123 7&*&*”		3					

5.	<div>Write a program in C to find the reverse of a string.</div> <table><tr><td>Sample Input</td><td>Sample Output</td></tr><tr><td>“My name is Andy”</td><td>“ydnA si eman yM”</td></tr><tr><td>“Abc 123 7*&amp;*”</td><td>“**&amp;*&amp;7 321 cbA”</td></tr></table>	Sample Input	Sample Output	“My name is Andy”	“ydnA si eman yM”	“Abc 123 7*&*”	“**&*&7 321 cbA”	**
Sample Input	Sample Output							
“My name is Andy”	“ydnA si eman yM”							
“Abc 123 7*&*”	“**&*&7 321 cbA”							
6.	<div>Write a program in C to convert lowercase string to uppercase.</div> <table><tr><td>Sample Input</td><td>Sample Output</td></tr><tr><td>“My name is andy”</td><td>“MY NAME IS ANDY”</td></tr><tr><td>“&amp; I am 20 years old”</td><td>“&amp; I AM 20 YEARS OLD”</td></tr></table>	Sample Input	Sample Output	“My name is andy”	“MY NAME IS ANDY”	“& I am 20 years old”	“& I AM 20 YEARS OLD”	*
Sample Input	Sample Output							
“My name is andy”	“MY NAME IS ANDY”							
“& I am 20 years old”	“& I AM 20 YEARS OLD”							
7.	<div>Write a program in C to toggle the case of each character in a string.</div> <table><tr><td>Sample Input</td><td>Sample Output</td></tr><tr><td>“My name is Andy”</td><td>“mY NAME IS aNDY”</td></tr><tr><td>“&amp; I am 20 Years old”</td><td>“&amp; i AM 20 yEARS OLD”</td></tr></table>	Sample Input	Sample Output	“My name is Andy”	“mY NAME IS aNDY”	“& I am 20 Years old”	“& i AM 20 yEARS OLD”	*
Sample Input	Sample Output							
“My name is Andy”	“mY NAME IS aNDY”							
“& I am 20 Years old”	“& i AM 20 yEARS OLD”							
8.	<div>Write a program in C to sort a string array in alphabetic order.</div> <table><tr><td>Sample Input</td><td>Sample Output</td></tr><tr><td>“My name is Andy”</td><td>“ AMadeimnnsyy”</td></tr><tr><td>“Abc 123 7*&amp;*”</td><td>“ &amp;&amp;**1237Abc”</td></tr></table>	Sample Input	Sample Output	“My name is Andy”	“ AMadeimnnsyy”	“Abc 123 7*&*”	“ &&**1237Abc”	**
Sample Input	Sample Output							
“My name is Andy”	“ AMadeimnnsyy”							
“Abc 123 7*&*”	“ &&**1237Abc”							
9.	<div>Write a program in C to count the occurrences of a character in a string regardless of its case.</div> <table><tr><td>Sample Input</td><td>Sample Output</td></tr></table>	Sample Input	Sample Output	*				
Sample Input	Sample Output							

	<table><tr><td>“My name is Andy” ‘a’</td><td>2</td></tr><tr><td>“WELCOME to CSE, everyone” ‘E’</td><td>6</td></tr></table>	“My name is Andy” ‘a’	2	“WELCOME to CSE, everyone” ‘E’	6			
“My name is Andy” ‘a’	2							
“WELCOME to CSE, everyone” ‘E’	6							
10.	<p>Write a program in C to check whether a string is a palindrome or not.</p> <table><tr><td>Sample Input</td><td>Sample Output</td></tr><tr><td>“My name is andy”</td><td>no</td></tr><tr><td>“madam”</td><td>yes</td></tr></table>	Sample Input	Sample Output	“My name is andy”	no	“madam”	yes	**
Sample Input	Sample Output							
“My name is andy”	no							
“madam”	yes							
11.	<p>Write a program in C to add the digits in a string.</p> <table><tr><td>Sample Input</td><td>Sample Output</td></tr><tr><td>“I am 20 years old”</td><td>2</td></tr><tr><td>“Abc 123 7*&amp;*&amp;”</td><td>13</td></tr></table>	Sample Input	Sample Output	“I am 20 years old”	2	“Abc 123 7*&*&”	13	**
Sample Input	Sample Output							
“I am 20 years old”	2							
“Abc 123 7*&*&”	13							
12.	<p>Write a program in C to count occurrences of a word in a string.</p> <table><tr><td>Sample Input</td><td>Sample Output</td></tr><tr><td>“I liked the story about the sad giant” “the”</td><td>2</td></tr><tr><td>“It is what it is” “it”</td><td>1</td></tr></table>	Sample Input	Sample Output	“I liked the story about the sad giant” “the”	2	“It is what it is” “it”	1	***
Sample Input	Sample Output							
“I liked the story about the sad giant” “the”	2							
“It is what it is” “it”	1							
13.	<p>Write a program in C to remove all repeated characters in a string.</p> <table><tr><td>Sample Input</td><td>Sample Output</td></tr><tr><td>“i like programming in C”</td><td>“i lkeprogamnC”</td></tr></table>	Sample Input	Sample Output	“i like programming in C”	“i lkeprogamnC”	***		
Sample Input	Sample Output							
“i like programming in C”	“i lkeprogamnC”							

	<table><tr><td><b>“My name is Andy”</b></td><td><b>“My nameisAd”</b></td></tr></table>	<b>“My name is Andy”</b>	<b>“My nameisAd”</b>							
<b>“My name is Andy”</b>	<b>“My nameisAd”</b>									
14.	<p><b>Write a program in C to find the maximum occurring character in a string.</b></p> <table><tr><td><b>Sample Input</b></td><td><b>Sample Output</b></td></tr><tr><td><b>“Welcome to CSE”</b></td><td><b>E (or e)</b></td></tr><tr><td><b>“mmmttssarrrddd”</b></td><td><b>D (or d)</b></td></tr><tr><td><b>“mmmttssarrrDDd”</b></td><td><b>D (or d)</b></td></tr></table>	<b>Sample Input</b>	<b>Sample Output</b>	<b>“Welcome to CSE”</b>	<b>E (or e)</b>	<b>“mmmttssarrrddd”</b>	<b>D (or d)</b>	<b>“mmmttssarrrDDd”</b>	<b>D (or d)</b>	<b>***</b>
<b>Sample Input</b>	<b>Sample Output</b>									
<b>“Welcome to CSE”</b>	<b>E (or e)</b>									
<b>“mmmttssarrrddd”</b>	<b>D (or d)</b>									
<b>“mmmttssarrrDDd”</b>	<b>D (or d)</b>									
15.	<p><b>Write a program in C to reverse the words in a string.</b></p> <table><tr><td><b>Sample Input</b></td><td><b>Sample Output</b></td></tr><tr><td><b>“My name is Andy”</b></td><td><b>“Andy is name My”</b></td></tr><tr><td><b>“Abc 123 7&amp;*&amp;”</b></td><td><b>“7&amp;*&amp; 123 Abc”</b></td></tr></table>	<b>Sample Input</b>	<b>Sample Output</b>	<b>“My name is Andy”</b>	<b>“Andy is name My”</b>	<b>“Abc 123 7&amp;*&amp;”</b>	<b>“7&amp;*&amp; 123 Abc”</b>	<b>***</b>		
<b>Sample Input</b>	<b>Sample Output</b>									
<b>“My name is Andy”</b>	<b>“Andy is name My”</b>									
<b>“Abc 123 7&amp;*&amp;”</b>	<b>“7&amp;*&amp; 123 Abc”</b>									