**String related problems**

**(Total 15 questions)**

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| --- | --- | --- |
| **SL** | **Problem statement** | **Difficulty levels** |
| **1.** | **Write a program in C to find the length of a string without using any library function.**   |  |  | | --- | --- | | **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.**   |  |  | | --- | --- | | **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.**   |  |  | | --- | --- | | **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.**   |  |  | | --- | --- | | **Sample Input** | **Sample Output** | | **“My name is andy”** | **4** | | **“Abc 123 7&\*&\*”** | **3** | | **\*** |
| **5.** | **Write a program in C to find the reverse of a string.**   |  |  | | --- | --- | | **Sample Input** | **Sample Output** | | **“My name is Andy”** | **“ydnA si eman yM”** | | **“Abc 123 7&\*&\*”** | **“\*&\*&7 321 cbA”** | | **\*\*** |
| **6.** | **Write a program in C to convert lowercase string to uppercase.**   |  |  | | --- | --- | | **Sample Input** | **Sample Output** | | **“My name is andy”** | **“MY NAME IS ANDY”** | | **“& I am 20 years old”** | **“& I AM 20 YEARS OLD”** | | **\*** |
| **7.** | **Write a program in C to toggle the case of each character in a string.**   |  |  | | --- | --- | | **Sample Input** | **Sample Output** | | **“My name is Andy”** | **“mY NAME IS aNDY”** | | **“& I am 20 Years old”** | **“& i AM 20 yEARS OLD”** | | **\*** |
| **8.** | **Write a program in C to sort a string array in alphabetic order.**   |  |  | | --- | --- | | **Sample Input** | **Sample Output** | | **“My name is Andy”** | **“ AMadeimnnsyy”** | | **“Abc 123 7&\*&\*”** | **“ &&\*\*1237Abc”** | | **\*\*** |
| **9.** | **Write a program in C to count the occurrences of a character in a string regardless of its case.**   |  |  | | --- | --- | | **Sample Input** | **Sample Output** | | **“My name is Andy”**  **‘a’** | **2** | | **“WELCOME to CSE, everyone”**  **‘E’** | **6** | | **\*** |
| **10.** | **Write a program in C to check whether a string is a palindrome or not.**   |  |  | | --- | --- | | **Sample Input** | **Sample Output** | | **“My name is andy”** | **no** | | **“madam”** | **yes** | | **\*\*** |
| **11.** | **Write a program in C to add the digits in a string.**   |  |  | | --- | --- | | **Sample Input** | **Sample Output** | | **“I am 20 years old”** | **2** | | **“Abc 123 7&\*&\*”** | **13** | | **\*\*** |
| **12.** | **Write a program in C to count occurrences of a word in a string.**   |  |  | | --- | --- | | **Sample Input** | **Sample Output** | | **“I liked the story about the sad giant”**  **“the”** | **2** | | **“It is what it is”**  **“it”** | **1** | | **\*\*\*** |
| **13.** | **Write a program in C to remove all repeated characters in a string.**   |  |  | | --- | --- | | **Sample Input** | **Sample Output** | | **“i like programming in C”** | **“i lkeprogamnC”** | | **“My name is Andy”** | **“My nameisAd”** | | **\*\*\*** |
| **14.** | **Write a program in C to find the maximum occurring character in a string.**   |  |  | | --- | --- | | **Sample Input** | **Sample Output** | | **“Welcome to CSE”** | **E (or e)** | | **“mmmttssarrrddd”** | **D (or d)** | | **“mmmttssarrrDDd”** | **D (or d)** | | **\*\*\*** |
| **15.** | **Write a program in C to reverse the words in a string.**   |  |  | | --- | --- | | **Sample Input** | **Sample Output** | | **“My name is Andy”** | **“Andy is name My”** | | **“Abc 123 7&\*&\*”** | **“7&\*&\* 123 Abc”** | | **\*\*\*** |