

## **Character Strings**

1. State what is meant by a string?
2. Explain how you indicate a char string in C.
3. What is the use of '\0'?
4. For a string consisting of five characters, how many array elements are required?  
Explain.
5. What is the element number of the first character in a C string array?
6. Explain the relationship between pointers and string array elements.
7. What is the difference between "\0" and '\0'?
8. Why use the statement `char string[80]="Hello"` instead of `char string[]="Hello"`?
9. Why is it not necessary to specify the string size when passing a string to a function?
10. What is actually passed between functions when one is dealing with strings?
11. Where must storage space for a string be reserved when strings are passed between functions?
12. What would happen when processing a string which was missing a terminating null character?
13. What are the differences between `scanf()` and `gets()` in relation to string input?
14. List the common string operations?
15. If the null character is missing from the end of a character string, what does `strlen()` do?
16. What happens to each string used in a `strcat()` operation?
17. What is meant by C character classifications in `<ctype.h>`? List the common `<ctype.h>` functions that check alphanumeric characters.
18. What is the function `toupper()` do?
19. How do you convert strings to numbers in C?
20. What is the purpose of the function `sprintf()`?
21. What is a rectangular array of characters? How is it stored in memory?
22. What is a ragged array?
23. What are the strength and weaknesses of rectangular and ragged arrays?
24. What is the difference between `islower()` and `tolower()` function in C?
25. What is the difference between 'g' and "g"?