

Assignment Day-7

Strings and Functions

S no	Assignment	Test cases	
		Input	Output
1	Write a C Program to Count Number of Uppercase and Lowercase Letters in a given string. The string may be a word or a sentence.	Hello from CDAC hyderabad	Uppercase Letters : 5 Lowercase Letters : 17
		THis is DAC Course	Uppercase Letters : 6 Lowercase Letters : 9
2	Write a C program to print Largest and Smallest Word from a given sentence. If there are two or more words of same length then the first one is considered. Here single letter such as "l" , "a" is considered as a word.	Problem Solving by C Programming.	Largest Word is: Programming Smallest word is: C
		CDAC is a R&D organization	Largest Word is: organization Smallest word is: a
4	Write a C Program to reverse a given word using function. e.g. INDIA should be printed as AIDNI	INDIA	The string after reversing is: AIDNI
		DELHI	The string after reversing is: IHLED
		computer	The string after reversing is: retupmoc
		CDAC	The string after reversing is: CADC
5	Write a program to check if a given integer is Prime Number using function. Implement function: int checkPrime(int n);	13	13 is prime number
		11	11 is prime number
		7	7 is prime number
		18	18 is NOT prime number
6	Write a C Program to find power of a given number using recursion. The number and the power to be calculated is taken from test case	5 3	5^3 is 125
		16 3	16^3 is 4096
		5 2	5^2 is 25
		10 4	10^4 is 10000
7	Write a C Program to print Binary Equivalent of an Integer using Recursion	30	11110
		111	1101111
		10	1010
		257	100000001

Assignment Day-7

S NO	Assignment
8	<p>What will be the output of the following code?</p> <pre>#include <stdio.h> int main() { char str1[] = "Week-7-Assignment"; char str2[] = {'W', 'e', 'e', 'k', '-', '7', '-', 'A', 's', 's', 'i', 'g', 'n', 'm', 'e', 'n', 't'}; int n1 = sizeof(str1)/sizeof(str1[0]); int n2 = sizeof(str2)/sizeof(str2[0]); printf("n1 = %d, n2 = %d", n1, n2); return 0; }</pre>
9	<p>What will be the output?</p> <pre>#include<stdio.h> #include<string.h> int main() { char str1[20] = "hello", str2[20] = " world"; printf("%s", strcpy(str2, strcat(str1, str2))); return 0; }</pre>
10	<p>To get the output as “Hwi ore a”, what should be the condition inside the ‘if’ statement?</p> <pre>#include<stdio.h> int main() { int i; char s[] = "How is your exam"; for(i = 0; s[i]!='\0'; ++i) { if(_____) printf("%c", s[i]); } return 0; }</pre>
11	<p>What will be the value of ‘i’ after the execution of the C code fragment given below?</p> <pre>static char str1[] = "dills"; static char str2[20]; static char str3[] = "daffo"; int i; i = strcmp(strcat(str3, strcpy(str2, str1)), "daffodills");</pre>

Assignment Day-7

12	<p>What will be the output?</p> <pre>#include<stdio.h> #include<string.h> int main() { char p[] = "assignment"; char t; int i, j; for(i=0, j=strlen(p); i<j; i++) { t = p[i]; p[i] = p[j-i]; p[j-i] = t; } printf("%s", p); return 0; }</pre>
13	<p>What will be the output?</p> <pre>#include<stdio.h> void fu(int, int); int main() { char x=67, y='C'; fu(x,y); return 0; } void fu(int x, int y) { printf("%d,%d", x, y); }</pre>
14	<p>What will be returned by the function f(1)?</p> <pre>int f(int n) { static int i = 1; if (n >= 5) return n; n = n+i; i++; return f(n); }</pre>

Assignment Day-7

15	<p>How many times 'Hi' will be printed in the program given below</p> <pre>#include<stdio.h> int i; int fun(); int main() { while(i) { fun(); main(); } printf("Hello\n"); return 0; } int fun() { printf("Hi"); }</pre>
16	<p>What is the output of the C code given below</p> <pre>#include <stdio.h> float func(float age[]); int main() { float result, age[] = {23.4, 55, 22.6, 3, 40.5, 18}; result = func(age); printf("%.2f", result); return 0; } float func(float age[]) { int i; float result, sum = 0.0; for (i = 0; i < 6; ++i) { sum += age[i]; } result = (sum / 6); return result; }</pre>
17	<p>What will be the output?</p> <pre>#include <stdio.h> int main() { int i; for (i=0; i<5; i++) { int i = 10; printf ("%d ", i); i++; } return 0; }</pre>

Assignment Day-7

18	<p>How many times the function factorial will be executed?</p> <pre>#include<stdio.h> int factorial(int); int main() { int n=10; long int f; f = factorial(n); printf("%d! = %ld\n", n, f); return 0; } int factorial(int n) { if (n == 0) return 1; else return(n * factorial(n-1)); }</pre>
19	<p>What will be the output?</p> <pre>#include <stdio.h> void swap(int a, int b) { int temp; temp = a; a = b; b = temp; } int main() { int num1 = 10, num2 = 20; printf("Before swapping num1 = %d num2 = %d\n", num1, num2); swap(num1, num2); printf("After swapping num1 = %d num2 = %d \n", num1, num2); return 0; }</pre>
20	<p>Consider the following C function definition:</p> <pre>int func(int a, int b, int c) { if ((a >= b) && (c < b)) return b; else if (a >= b) return func(a,c,b); else return func(b,a,c); }</pre> <p>The function func():</p> <p>The function func() is used to find...?</p>