



Daffodil International University
Department of Software Engineering
Faculty of Science & Information Technology
Final Examination, Spring 2023

Course Code; SE 121 Course Title: Structured programming
Sections & Teachers: (NJ, AD, AM)&(A,B,C,D,E)

Time: 2:00 Hrs

Marks: 40

Answer ALL Questions

[The figures in the right margin indicate the full marks and corresponding course outcomes. All portions of each question must be answered sequentially.]

1	<p>a) Find out the correct output for the following two programs:</p> <p>i) #include <stdio.h> int main() { int num, i; printf("Enter a positive integer: "); scanf("%d", &num); printf("Factors of %d are: ", num); for (i = 1; i <= num; ++i) { if (num % i == 0) { printf("%d ", i); } } return 0; }</p>	<p>ii) #include <stdio.h> int main() { double a, b; printf("Enter a: "); scanf("%lf", &a); printf("Enter b: "); scanf("%lf", &b); a = a - b; b = a + b; a = b - a; printf("After swapping, a = %.2lf\n", a); printf("After swapping, b = %.2lf", b); return 0; }</p>	[Marks-4]	CLO-2 Level-4
	<p>b) Develop a program to display following patterns using for loop.</p> <p>i) A B C D A B C A B A A ii) 1 1 2 A 1 2 3 A B 1 2 3 4 A B C</p>		[Marks-6]	
2	<p>a) Mark the error, interpret correct code and write the correct output</p> <pre>#include <stdio.h> int main(100); { int arr[3][10] = ["Geek", "Geeks", "Geekfor"] printf("String array Elements are:\n");</pre>		[Marks-3]	CLO-3 Level-5

	<pre>for (int i = 0; i < 3; ++i) { printf("%d\n", arr[i]); } return s; }</pre>		
	<p>Suppose, a 2D array of 3*3 dimension is given like below-</p> <pre>1 2 4 2 3 4 2 6 9</pre> <p>Develop a C code to replace the even numbers of the 2D array with 0 and odd numbers with 1. Your final outcome will be like-</p> <pre>1 0 0 0 1 0 0 0 1</pre>	[Marks-5]	
3	<p>The following code is the example the passing string to a function:</p> <pre>#include <stdio.h> void displayString(char str[]); int main() { char str[50]; printf("Enter string: "); fgets(str, sizeof(str), stdin); displayString(str); // Passing string to a function. return 0; } void displayString(char str[]) { printf("String Output: "); puts(str); }</pre> <p>Mark down the name of string function from this code</p>	[Marks-4]	CLO-3 Level-5
	<p>Determine a c program to reverse order of words in a string</p> <p>Sample output: Hello->olleh</p>	[Marks-3]	
4	<p>a) Distinguish the difference in using call by reference and call by value methods for argument passing, for swapping 2 numbers.</p>	[Marks-4]	CLO-4 Level-4
	<p>b) Develop a program using a function to print first 'n' numbers in Fibonacci series.</p>	[Marks-3]	
5	<p>a) Plan structure within structure consisting of following elements: Student code Student name Student tuition fee Student admission date</p> <p>Analyze a program to read at least 10 records and display them</p>	[Marks-8]	CLO-4 Level-4

Note: You may add or delete rows as per your requirements. Mention CLO's in the right side of the table as per your course outline.