

INDIAN INSTITUTE OF INFORMATION TECHNOLOGY, NAGPUR

Department of Computer Science and Engineering

B.Tech. CSE & ECE

Computer Programming (CSL 101) Sessional-II Examination

Date: 20/01/2023

Duration: 01 Hour

Max. Marks: 15

Important Instructions:

All the questions are compulsory.

BT22 CSE042

• Maximum marks and CO's for a particular question are indicated on the extreme right of the corresponding question within the brackets [] and CO's in ().

1. Determine the output and Error of the following C programs. (a) int main(){ int m = 10; int n, n1; n = ++m; nl = m++; n; n1; n = n1; printf ("%d",n); return 0; } (b) int jumble(int x, int y){ x = 2*x + y; return x; } int main(){ int x = 2, y = 5; y = jumble(y, x); x = jumble(y, x); printf("%d \n", x); return 0; } (c) int r(){ static int num=7; return num; } int main(){ for(r();r();r()) printf("%d",r()); return 0; } 2. a) Write down a C program to compute the GCD of two numbers using recursion. (d) void main() { int ar[10]; func(arr); int ar[10]){ int tar[10]}; func(arr); int tar[10]){ int tar[10]}; int tar[10]){ int tar[10]}; int tar[10]){ int tar[10]}; int tar[10]){ int tar[10]}; int ar[10]){ int tar[10]}; int tar[10]){ int tar[10]}; int x = f(5); printf("%d",x); return 0; if(n < 0) return 1; if(n < 3){ r - n; return f(n - 2) + 2; } return f(n - 1) + r; } 2. a) Write down a C program to compute the GCD of two numbers using recursion. (2.5]	Q. No.	Questions		Marks COs
(a) int main(){ int m = 10; int n, n1; n = ++m; n1 = m++; ni; n-n1; n-n1; printf("%d",n); return 0; } (b) int jumble(int x, int y){ x = 2*x + y; return x; } int main(){ int x = 2, y = 5; y=jumble(y, x); x = jumble(y, x); return 0; } (c) int r(){ static int num=7; return f(n-1)+r; } (d) void main() { int arr[10]; int arr[10]; int (log lint [10]){ int [10]; int to [10]; int to [10]; int x = 5, y = 4; a = &x b = &y } int x = f(5); printf("%d", x); return 0; int x = f(5); printf("%d", x); return 1; if(n < 0) return 1; if(n > 3){ r = n; return f(n-2) + 2; } return f(n-1) + r; } (c) int r(){ static int num=7; return f(n-1) + r; } 2. a) Write down a C program to compute the GCD of two numbers using recursion. [2.5]	1.	Determine the output and Error of the following C programs.		[05]
return 0; } 2. a) Write down a C program to compute the GCD of two numbers using recursion. [2.5] (CO2)		<pre>int m = 10; int n, n1; n = ++m; n1 = m++; n;n1; n-= n1; printf ("%d",n); return 0; } (b) int jumble(int x, int y){ x=2*x+y; return x; } int main(){ int x=2, y=5; y=jumble(y,x); x=jumble(y,x); printf("%d \n", x); return 0; } (c) int r(){ static int num=7; return num; } int main(){ for(r();r();r())</pre>	<pre>int arr[10]; func(arr); } void func(int a[10]){ int b[10]; int x=5,y=4; a=&x b=&y } (e) int main(){ int x = f(5); printf("%d", x); return 0; } int f(int n){ static int r=0; if(n<=0) return 1; if(n>3){ r=n; return f(n-2)+2; }</pre>	(COI)
(CO2)	2	}	ne GCD of two numbers using recursion	[2.5]
	2.			(CO2)

3.	a) Given an array of N integers where each element represents the maximum length of the jump that can be made forward from that element. Write a C program to find the jumps to reach out the end of the array (starting from the first element). If an element is 0, then you cannot move through that element. For example: Input: arr[] = {1, 3, 5, 8, 9, 2, 6, 7, 6, 8, 9} Output: 3	[2] (CO2)
	b) Write a C program to find the sum of main and anti-diagonal elements of a square matrix.	[3] (CO2)
	For example: Matrix: 987	
	546	
	1 2 3 Sum of Main diagonal elements: 16 Sum of Opposite diagonal elements: 12	at A