Q.P Code: CS1103ES	Hall Ticket No.:	
Q.1 Code. Correct		

### NARSIMHA REDDY ENGINEERING COLLEGE (UGC AUTONOMOUS)

## I B.Tech I Semester (NR21) Regular & Supplementary Examination, March 2023

### PROGRAMMING FOR PROBLEM SOLVING (Common to CE, EEE, ME, CSE)

	(Common or CE)	
		Maximum marks: 70
		Maximum marks. 70
Time: 3 hours		Tritization .
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Note: • This question paper contains two parts, A and B

- Part A is compulsory which carries 20 marks (10 sub questions are two from each unit carry 2 Marks). Answer all questions in Part A
- Part B Consists of 5 Units. Answer one question from each unit. Each question carries 10 Marks and may have a, b sub questions

#### Part-A Answer all questions

(20 Marks)

		Overtion	M	CO	BL
0.1	No	Question	2	COI	L2
1)	a.	Write difference between algorithm and flowchart	2	COI	LI
,	b.	Define keyword constant and variable.	2	CO2	L2
	C.	Weite the syntax for nested if and else-if ladder?	- 2	CO2	L2
	d.	Distinguish between while and do-while statements.	2	CO3	L
	e.	Differentiate between break and continue	12	CO3	L
	f.	What is an array? Write the types of an array.	2	CO3	L
	g.	What is multi-dimensional array?	- 2	CO4	L
	h.	Define pointer How can you declare it?	2	CO4	L
	i.	How can you read a string through keyboard?		_	L
	1.	Define Structure? How to Initialize a Structure?	2	COS	L
	1 1.	Define off details			

#### (50 Marks) Part-B Answer all the Units All Questions carry equal Marks

		Overtion	M	CO	BL
Q.N	o	Question	-		
-		UNIT-I	5 1	CO1	L2
2)	a	Write the structure of C program and explain	3		1.2
4)	b.	Write a program to perform swapping of two numbers without using temporary variable	5	COI	LıZ
	_	OR			1
_		Write an algorithm and flowchart to generate Fibonacci series	5	COI	L2
3)	a.	Write an algorithm and nowement to general			
		of numbers up to 'n'	5	COI	L3
	b.	Draw the flowchart to find une greatest of three flatters			
		UNI -II	10	CO2	T L2
-		Write and explain about switch statement	12	_	_
4)	a.	write and explain about ovices arithmetic operations using	5	CO2	L2
	b.	Write a Program to perform arithmetic operations using switch.		L	1
_	-	OR			

		7 1 d. C. Andreid of a given number	5	CO2	L2
)	a.	Write a program to find the factorial of a given number	5	CO2	L3
-	b.	Explain else-if ladder with the help of flowchart and program			
		UNIT-III	5	CO3	L2
5)	a.	Define 2n array. How to initialize one-dimensional array?	-		
,		m	5	CO3	L3
1	b.	Write a C program to sort the given array elements in	,		700.00
1		Ascending order			
		OR .	5	CO3	L3
7)	a.	How to declare and initialize a Two-dimensional array?	,	1 005	
')			5	CO3	L3
	b.	Write a C program to print the sum of diagonal elements of	3	003	1
	U.	2 D metrix	_		
		UNIT-IV	T =	I CO4	L2
9)	T-	What are the features of pointers? Write a C program to print	5	CO4	1.2
8)	a.	Cinhla	1	004	L3
	1	to tention of pointers and pointer to pointer with	5	CO4	173
	b.	examples.			
	1_	OR		T ===	T 12
	_	Explain the concept of functions returning pointers with	5	CO4	L3
9)	a.		_		1.3
	+	write a C program to read and print an array of elements	5	CO4	L3
	b.	Write a C program to read and pro-			
		using pointers UNIT-V			
		The State and write the general syntax for declaring	5 5	CO5	L3
10)	a				-
	1	and accessing members  How to copy and compare structure variables? Illustrate with	1 5	CO5	L3
	b	How to copy and compare structure variables	1		
		example			-
	_	for eneming a file with various modes and	d :	5 CO5	L
11	)   8	Write the syntax for opening a me want			
		closing a file.		5 CQ5	L
	t	b. Explain the following file handling functions:	1		
		a. fseek() b. ftell() c. rewind() d. feof()			

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## NARSIMHA REDDY ENGINEERING COLLEGE (UGC AUTONOMOUS)

# I B.Tech II Semester (NR21) Regular & Supplementary Examination, August 2023 PROGRAMMING FOR PROBLEM SOLVING

(Common to ECE, CSE (CS), CSE (AI&ML), CSE (DS))

Time: 3 hours Maximum marks: 70

Note: • This question paper contains two parts, A and B

- Part A is compulsory which carries 20 marks (10 sub questions are two from each unit carry 2 Marks). Answer all questions in Part A
- Part B Consists of 5 Units. Answer one question from each unit. Each question carries 10 Marks and may have a, b sub questions

#### Part-A Answer all questions

(20 Marks)

Q.	No	Question	M	CO	BL
1)	a.	Name any five features of C programming Language.	2	CO1	L1
Â	b.	Name any two secondary storage devices and mention their characteristics.	2	CO1	L2
- 14	c.	Give a note on unions.	2	CO2	Ll
	d.	Why is it necessary to give the size of an array in an array declaration?	2	CO2	L2
	e.	Define preprocessor directive.	2	CO3	L1
	f.	Define the terms: Binary file and text file.	2	CO3	L1
	g.	Write short notes on dynamic memory allocation.	2	CO4	L1
	h.	Discuss about allocating and freeing memory.	2	CO4	L2
	i.	How do you find the time complexity of a bubble sort?	2	CO5	L1
	j.	Write an algorithm to find the maximum number in a given set.	2	CO5	L2

#### Part-B Answer all the Units All Questions carry equal Marks

(50 Marks)

Q.N	No	Question	M	CO	BL		
	UNIT-I						
2)	a.	What is the importance of precedence and associativity in evaluating an expression?	5	CO1	L2		
	b.	Write a program in 'C' to check whether a given integer number is odd or even.	5	COI	L3		
		OR					
3)	a.	Explain typical steps for entering, compiling and executing 'C' programs.	5	CO1	L3		
	b.	State the purpose of unary and conditional operators.	5	CO1	L2		
		UNIT-II					
4)	a.	Explain about Enumerated data types with an example.	5	CO2	L3		
	b.	Write a program to find the string length by using string function.	5	CO2	L4		

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		OR			
5)	Dis	cuss any five string handling functions in detail.	10	CO2	L3
		UNIT-III			
6)		t and explain various file read/write functions available in C h examples illustrating their usage and implementation.	10	CO3	L4
		OR			
7)	a.	Explain the concept of streams and their significance in I/O operations.	5	CO3	L3
	b.	Write a C program to illustrate define, undef directives.	5	CO3	L2
		UNIT-IV			
8)		nat is Recursion? Write a 'C' Program for Towers of Hanoi. Also ecify in diagram for it.	10	CO4	L4
		OR			
9)	a.	What is a function prototype? Give an example.	5	CO4	L2
	b.	List and explain the functions used to allocate and free memory dynamically.	5	CO4	L3
		UNIT-V			
10)	a.	Write a C program to determine whether a given number is prime or not.	5	CO5	L3
	b.	Explain the algorithm for finding roots of a quadratic equation.	5	CO5	L3
		OR			
11)		fine algorithm and write algorithm to generate prime number ies between m and n, where m and n are integers	10	CO5	L4

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## NARSIMHA REDDY ENGINEERING COLLEGE (UGC AUTONOMOUS)

### I B.Tech I Semester (NR20) Supplementary Examination, March 2023

### PROGRAMMING FOR PROBLEM SOLVING (Common to CE. ME. ECE. CSE (AI&ML))

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Ti 2 house	

Maximum marks: 75

Note: • This question paper contains two parts, A and B

- Part A is compulsory which carries 25 marks (1st 5 sub questions are one from each unit carry 2 Marks each & Next 5 sub questions are one from each unit carry 3 Marks). Answer all questions in Part A
- Part B Consists of 5 Units. Answer one question from each unit. Each question carries 10 Marks and may have a, b sub questions

#### Part-A Answer all questions

(25 Marks)

0.1	Vo	Ouestion	M	CO	BL
1)	a.	Write difference between algorithm and flowchart	2	CO1	L2
'	b.	Define keyword, constant and variable.	2	CO1	L1
	C.	Write the syntax for nested if and else-if ladder?	2	CO2	L2
	d.	Distinguish between while and do-while statements.	2	CO2	L2
	e.	Differentiate between break and continue	2	CO3	L2
	f.	What is an array? Write the types of an array.	3	CO3	LI
Ì	g.	What is multi-dimensional array?	3	CO3	L2
	h.	Define pointer. How can you declare it?	3	CO4	L2
	i.	How can you read a string through keyboard?	3	CO4	L3
	i	Define Structure? How to Initialize a Structure?	3	CO5	L2

#### Part-B Answer all the Units All Ouestions carry equal Marks

(50 Marks)

Q.N	No	Question	M	CO	BL
4		UNIT-I			
2)	a.	Write the structure of C program and explain	5	CO1	L2
2)	b.	Write a program to perform swapping of two numbers without using temporary variable	5	CO1	L2
		OR			
3)	a.	Write an algorithm and flowchart to generate Fibonacci series of numbers up to 'n'	5	CO1	L2
	b.	Draw the flowchart to find the greatest of three numbers.	5	CO1	L3
	0.	UNIT-II			
4)	a.	Write and explain about switch statement.	5	CO2	L2
7)	b.	Write and Span to perform arithmetic operations using switch.	5	CO2	L2
		OR			

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5)	a.	Write a program to find the factorial of a given number	5	CO2	L2
)	b.	Explain else-if ladder with the help of flowchart and program	5	CO2	L3
	0.	UNIT-III			
6)	a.	Define an array. How to initialize one-dimensional array? Explain with suitable examples	5	CO3	L2
	b.	Write a C program to sort the given array elements in Ascending order	5	CO3	L3
		OR			
7)	a.	How to declare and initialize a Two-dimensional array?  Discuss with examples	5	CO3	L3
	b.	Write a C program to print the sum of diagonal elements of 2-D matrix	5	CO3	L3
		UNIT-IV			
8)	a.	What are the features of pointers? Write a C program to print address of a variable	5	CO4	L2
A	b.	Explain the declaration of pointers and pointer to pointer with examples.	5	CO4	L3
		OR			
9)	a.	Explain the concept of functions returning pointers with example	5	CO4	L3
	b.	Write a C program to read and print an array of elements using pointers	5	CO4	L3
	_	UNIT-V			
10)	a.	and accessing members	5	CO5	L3
	b.	1.1. O Illustrate with	5	CO5	L
	_	OR			
11)	a.	Write the syntax for opening a file with various modes and closing a file.	_		L
	b.	1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	5	CO5	L.

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