

Hall Ticket Number:

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Code No. : 13762 N (B)

VASAVI COLLEGE OF ENGINEERING (AUTONOMOUS), HYDERABAD

(Accredited by NAAC with A++ Grade)

B.E. III-Semester Bridge Course Main Examinations, February-2024

Programming Techniques to Problem Solving

(Common for EEE & ECE)

Time: 3 hours

Max. Marks: 50

Note: Answer all questions from Part-A and any FIVE from Part-B

Part-A (10 × 2 = 20 Marks)

Q. No.	Stem of the question	M	L	CO	PO
1.	Write rules to construct identifier name in C language?	2	1	1	1
2.	Find the value of d, if a=5, b=7, c=1 d = c + b/2*a ; apply operator precedence and associativity	2	2	1	2
3.	Write a C program to display whether the given integer number is Even or Odd?	2	3	2	2
4.	Write the syntax of while loop statement?	2	2	2	2
5.	Write the syntax of declaring and initializing one dimensional array?	2	2	3	1
6.	What is the output of the following code segment? <pre>#include<stdio.h> int main(void) { int a[3]={2}; int i; for(i=0;i<3;i++) printf(“%d,”,a[i]); return 0; }</pre>	2	3	3	2
7.	Define a pointer variable and give its usage in C programming?	2	1	4	1
8.	Define string? What is the format specifier used to read string data in scanf() function?	2	1	4	1
9.	Differentiate structure and union?	2	2	5	1
10.	Write the syntax of opening a new text file?	2	3	5	2
Part-B (5 × 6 = 30 Marks)					
11. a)	Draw the block diagram of computer? Explain each block?	3	1	1	1

Contd... 2

	b)	List relational and logical operators in C language and explain their operation?	3	2	1	2
12.	a)	Write a C program to read three integers, display the largest of three integers using nested if else?	3	3	2	2
	b)	Illustrate break and continue statements?	3	2	2	1
13.	a)	Write a C program to read 'n' integer data values using one dimensional array, arrange them in ascending order using "Bubble sort" algorithm?	3	3	3	2
	b)	Write a C program to read a square matrix of size m – by – m using two-dimensional array, display the trace of the matrix?	3	3	3	2
14.	a)	Explain call by address parameter passing mechanism using pointers?	3	1	4	1
	b)	Write a C program to allocate memory for 'n' integers dynamically using malloc() function, display the sum of the integers?	3	3	4	2
15.	a)	Define structure and write its advantages in programming?	3	2	5	1
	b)	Write a C program to define a user defined data type "complex" with real and imaginary as members, declare and initialize two complex numbers and perform the addition between two complex numbers?	3	3	5	2
16.	a)	Write a C program to read two integer data values, swap data and display data values before and after swapping?	3	3	1	2
	b)	Define function? Explain Different types of functions based on parameters and return value?	3	1	2	1
17.		Answer any <i>two</i> of the following:				
	a)	Define recursion? Write a C program to display the factorial of given integer using recursion?	3	2	3	1
	b)	Write a C program to read a string data using gets() function and display the length of the string i.e. number of character data present in the given string?	3	3	4	2
	c)	Explain different modes of opening a text and binary files with examples?	3	2	5	1

M : Marks; L: Bloom's Taxonomy Level; CO; Course Outcome; PO: Programme Outcome

i)	Blooms Taxonomy Level – 1	23%
ii)	Blooms Taxonomy Level – 2	35%
iii)	Blooms Taxonomy Level – 3 & 4	42%
