VASAVI COLLEGE OF ENGINEERING (AUTONOMOUS), HYDERABAD

(Accredited by NAAC with A++ Grade)

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

Computer Programming

(Common to CSE & AIML)

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.	Explain the different Generations of Programming languages?	2	1	1	1
2.	Explain Bitwise operator with suitable C program?	2	2	1	1
3.	Explain logical operators with a suitable program?	2	2	2	1
4.	State multiway selection statements with syntax?	2	1	2	1
5.	Explain Bubble Sort? Sort 78,45,3,84,27 using Bubble sort?	2	3	3	1,2
6.	Write a for loop for the sequence a. 7,9,11,13,….,67 b. The first 10 numbers in series 1,4,7,10,…..	2	3	3	1,2
7.	Explain the significance of & and * operators in pointers?	2	1	4	1
8.	List and explain Dynamic Memory Management Functions?	2	1	4	1
9.	Summarize dot(.) and sizeof() operators.	2	1	5	1
10.	Imagine we have declared the following structure typedef struct { char x; char *y; int z[20]; } FUN; Determine which of the following definitions are valid. If invalid explain the error. a. struct FUN f1; b. struct FUN f5[23]; c. FUN f3; d. FUN f4[20];	2	3	5	1,2

Part-B (5 × 6 = 30 Marks)

11. a)	Explain about Input/Output formatting?	3	1	1	1
b)	Explain in brief about Precedence and Associativity with suitable example program?	3	2	1	2

			M	L	CO	PO
12.	a)	What is a Function? Explain different types of User Defined Functions with a suitable example programs?	3	2	2	1,2
	b)	Write a function called parkingcharge that, given the type of vehicle (c for car, b for bus, t for truck) and the hours a vehicle spent int the parking lot returns the parkingcharge on the rates (Car 3rs per hour, Bus 4rs per hour, Truck 6rs per hour).	3	3	2	2
13.	a)	Define Recursion? Write a function to read integers from keyboard. If any of the numbers are negative, it returns a negative number. If all the numbers are positive, it returns their Average.	3	3	3	3
	b)	Write a c program to search an integer from N numbers in ascending order using Binary Search technique?	3	3	3	2
14.	a)	List various string manipulation functions with suitable example program?	3	2	4	2
	b)	Write a c program to return multiple value from a function using pointers?	3	3	4	2
15.	a)	Explain different File modes with an example c program?	3	2	5	1
	b)	Bring out the meaning of Array of structures? Write a c program to read the following information of 60 students. Student name,student roll number,and marks of 5 students. Print the roll number and names of the students who have secured more than 60 percent.	3	3	5	1,2
16.	a)	What is Expression? Explain different categories of Expressions with suitable Examples?	3	2	1	1
	b)	Compare the working of While and Do-while loop with suitable Example program?	3	3	2	2
17.		Answer any *two* of the following:				
	a)	Write a program to fill the left-to-right diagonal of a square matrix with zeros, the lower left triangle with -1's and upper right triangle with 1's? Assume a Six by Six matrix.	3	3	3	1,2
	b)	Explain pointers to pointers concept with suitable program?	3	2	4	2
	c)	Discuss how to copy and compare Structure variables? Illustrate with example.	3	2	5	1

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

i)	Blooms Taxonomy Level – 1	21%
ii)	Blooms Taxonomy Level – 2	36%
iii)	Blooms Taxonomy Level – 3 & 4	43%

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