Q. Code:130479

Reg. No. | | | | | | | | | | | | | |

B.E. / B.TECH. DEGREE EXAMINATIONS, MAY 2024

First Semester

CS22151 – PROGRAMMING IN C

(Computer Science and Engineering)

(Regulation 2022)

TIME: 3 HOURS **MAX. MARKS: 100**

COURSE OUTCOMES	STATEMENT	RBT LEVEL
CO 1	Apply various problem-solving techniques and represent solutions in the form of algorithms and flow charts.	**2**
CO 2	Able to write C programs using the control statements of C language for simple.	**2**
CO 3	Develop programs using of array and string operations to solve problems.	**2**
CO 4	Create user-defined functions, structures and unions to perform a task.	**2**
CO 5	Use file operations to store and retrieve data.	**1**

PART- A (20 x 2 = 40 Marks)

(Answer all Questions)

		CO	RBT LEVEL
1.	Main memory is volatile in nature. Then what is the purpose of having it in the system?	**1**	**2**
2.	Application software cannot run without the presence of System Software. Justify it.	**1**	**2**
3.	What type of data transmission mode takes place for the E-Mail Application? Why?	**1**	**2**
4.	Are there any advantages of Mesh topology over Star topology of networks?	**1**	**2**
5.	List out various input & output statements in C.	**2**	**2**
6.	Write a C program to check whether the given number is odd or even using ternary operator.	**2**	**2**
7.	Compare pre-test loop and post-test loop.	**2**	**2**
8.	Write a syntax for loop and to print from 10 to 1 using ‘for’ loop.	**2**	**2**
9.	List out the features and drawbacks of an array.	**3**	**2**
10.	Identify the use of automatic sizing in array with example.	**3**	**2**

11.	Write a C program to replace vowels in a string with the character 'X'.	**3**	**2**
12.	Write a program in C to print individual characters of a string in reverse order.	**3**	**2**
13.	Write the syntax for function declaration or function prototype and define function.	**4**	**2**
14.	Distinguish between library functions and user defined functions in C with example.	**4**	**2**
15.	Write a C program to find factorial of a number using recursion.	**4**	**2**
16.	What are the two approaches to pass an argument to a function.	**4**	**2**
17.	List the benefits of using pointers in' C ' programming.	**5**	**1**
18.	What is the use of Preprocessor directive.	**5**	**1**
19.	Write the syntax for opening and closing of a file with example.	**5**	**1**
20.	Write a 'C' program using pointer to find sum of all elements stored in a array.	**5**	**1**

PART- B (5 x 10 = 50 Marks)

		Marks	CO	RBT LEVEL
21. (a)	Explain in detail about various components/Anatomy of a computer.	**(10)**	**1**	**2**
	(OR)			
(b)	Explain in detail about data transmission modes with examples.	**(10)**	**1**	**2**
22. (a)	Interpret the decision-making statements (if, if…else, nested if) in C with example program.	**(10)**	**2**	**2**
	(OR)			
(b)	Interpret the operators and its types (arithmetic, relational, bitwise) in C with example programs.	**(10)**	**2**	**2**
23. (a)	Illustrate the declaration and initialization of an array to perform addition of	**(10)**	**3**	**2**

two matrices using two dimensional array.

(OR)

(b)	Illustrate about declaration and initialization of string and write a C program to find whether a given string is palindrome or not.	**(10)**	**3**	**2**
24. (a)	Write a C program to print the Marksheet of a student in a class using structure.	**(10)**	**4**	**2**

(OR)

(b)	Write a C program to display the month of the year using enumerated data type.	**(10)**	**4**	**2**
25. (a)	Illustrate about pointer and write a C program to swap three numbers without using temporary variable.	**(10)**	**5**	**2**

(OR)

(b)	Illustrate about files and write a C program that reads the name of a file and display the content of the file on the user screen.	**(10)**	**5**	**2**

PART- C (1 x 10 = 10 Marks)

(Q.No.26 is compulsory)

		Marks	CO	RBT LEVEL
26.	Write a C program to illustrate the call-by-value and call-by-reference techniques.	**(10)**	**4**	**5**

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