



	WINTER-2023		
	Exam Seat No.:		
	Academic Year:2023-2024	Semester:I	
	Name of Programme: F. Y. B.Tech	Pattern:2023	
	Name of Course: Programming in C	Course Code:2300108A	
	Max. Marks:60	Duration:2.30 Hrs	

	<p>Instructions: Candidates should read carefully the instructions printed on the Question Paper and on the cover page of the Answer Book, which is provided for their use.</p> <ol style="list-style-type: none">1. This question paper contains _____page(s).2. Answer to each new question is to be started on a new page.3. Assume suitable data wherever required, but justify it.4. Draw the neat labelled diagrams, wherever necessary.5. The last columns indicates the Course Outcome	
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Question No. 1 Attempt following Question

- 1a) Write an algorithm and draw a flowchart to find the area and perimeter of a square (6) CO1

Question No. 2 Attempt following Question

- 2a) List the different logical and relational operators and give examples of each (6) CO3

Question No. 3 Attempt following Question

- 3a) Identify the type of (if any) errors in the following code, rewrite the corrected code and write the expected output (5) CO3

```
int main()
{
    i=1;
    while(i<=10);
    {
        printf("%d\n", i);
        i++;
    }
    return 0;
}
```

OR

3b) Explain, why do we need a loop in C programming? State the difference between while and do while loop with example (5) CO3

3c) Explain with the examples how break and continue statements affect the flow of program execution. (5) CO3

OR

3d) What is an array in C? What is a two dimensional array in C? Give example of a two dimensional array (5) CO3

3e) Write a program to read the two dimensional array (matrix) and print it (6) CO3

OR

3f) Write a C program to read n numbers and calculate the sum of all n numbers using a for loop (6) CO3

Question No. 4 Attempt following Question

4a) What are library functions? Describe any three library functions used in C (5) CO4

OR

4b) Write a general format for function declaration, definition and function call with example (5) CO4

4c) Identify the type of (if any) errors in the following code, rewrite the corrected code and write the expected output (5) CO4

```
void abc (int a, int b)
{
    int c;
    c=a*b;
    return (c);
}

int main()
{
    int a=5,b=6,c;
    c=abc(a,b);
    printf("%d", c);
}
```

OR

4d) What are parameters used in a function declaration? How to pass the parameters to the function? (5) CO4

4e) Write a program in C for calculating library fine .The fine amount is based on the number of days the user has delayed to return the book The program should accept the number of days (6) CO4

delayed and fine per day as an input and return the total fine amount using the function

OR

- 4f) Write a program in C for doing the following operation using library functions. (6) CO4
- i. finding square root of the number ii. finding length of the string

Question No. 5 Attempt following Question

- 5a) What is structure? Why to use a Structure? Give example of structure declaration (5) CO5

OR

- 5b) How do we access Structure Elements? Explain how structure elements are stored with example (5) CO5

- 5c) What is an array of structure? How do we refer to each element of the array of structure? Give example (5) CO5

OR

- 5d) Identify the type of (if any) errors in the following code, rewrite the corrected code and write the expected output. (5) CO5

```
int main()
{
    struct book {
        char title[100];
        char author[100];
        float price;
    }bk;
    bk.title="Let us C"
    bk.author="Kanetkar";
    bk.price=400;
    printf("%s %s %c", bk.title, bk.author, bk.price);
}
```

- 5e) Write a program using array of structure to store and print details of roll_no, name and mark of five students (6) CO5

OR

- 5f) Write a C program to define a structure to store and display the following data (6) CO5

Employee ID = 10.1

Gender = 'M'

Employee Age = 46

Employee Salary = 60000/-