K. K. Wagh Institute of Engineering Education & Research, Nashik

(An Autonomous Institute From A.Y. 2022-23)

WINTER-2025	
Exam Seat No.:	
Academic Year:2025-2026	Semester:I/II
Class:FY	Program:B.Tech
Branch Code:FYE	Pattern:2023
Name of Course:Programming in C	Course Code:2300108A
Max. Marks:60	Duration:2.30 Hrs.

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.

1. This question paper contains 02 pages.
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 and level of Blooms Taxonomy of the Question/sub-question.

		Marks	CO
Question No. 1			
1	Illustrate with an algorithm and flowchart how the smallest of two numbers is identified.	(6)	CO1
Question No. 2			
2	Develop a program to get the price for grocery items Cooking Oil, Jawar, Bajara and display it in following format: List of Stationary Items Item Rate Cooking Oil Rs.120.45 Jawar Rs.20.50 Bajara Rs. 30.50	(6)	CO2
Question No. 3			
3.a)	Develop a C program to read 10 integer values from the user and calculate the sum of only even numbers. Display the final sum.	(6)	CO3
	OR		
3.b)	Identify the key differences between entry controlled and exit controlled loops with suitable example.	(6)	CO3
3.c)	Make use of a one-dimensional array and a for loop to store n integer elements entered by the user and apply appropriate logic to determine and display the largest and smallest elements in the array.	(5)	CO3
	OR		
3.d)	Develop a C program using a two-dimensional array and a nested for loop to read matrix A of size 3X3 and display it's transpose.	(5)	CO3
3.e)	Develop a C program that makes use of a do-while loop to read integer numbers from the user until a negative number is entered, and apply appropriate logic to calculate and display the sum of all	(5)	CO3

positive numbers entered.

OR

3.f) Identify errors(if any) in the following code. Rewrite the corrected code and write the expected output. (5) CO3

```
#include <stdio.h>

int main()

{

   int arr[5], i, sum = 0;

   for(i = 0; i <= 5; i++);

   {

      scanf("%d", arr[i]);

      sum = sum + arr[i];

   }

   printf("Sum of elements = %d\n" sum);

   return;

}
```

Question No. 4

4.a) Identify the differences between library function and user defined function. (6) CO4

OR

4.b) Make use of standard string library functions to compare two strings entered by the user and print whether they are equal or not. Write an appropriate C program. (6) CO4

4.c) Apply appropriate C string library functions to read a string from the user and display the length of the string. Write an appropriate C program. (5) CO4

OR

4.d) Make use of user defined function to swap two numbers. (5) CO4

a)Using call by value

b)Using call by reference

4.e) Develop a program to calculate total stationary bill using a function. Which accepts number of pencils, notebooks , pencil_rate, notebook_rate as input and return total bill amount as an output. (5) CO4

OR

4.f) Identify and explain advantages and disadvantages of call by value and call by reference using suitable examples. (5) CO4

Question No. 5

5.a) Apply the concepts of arrays and structures to compare their usage with a suitable programming example. (6) CO5

OR

5.b) Develop a program using structure to store details of 10 students such as Name, Class, Rollno and display the details for 10 students. (6) CO5

5.c)	Apply an array of structures to store movie details (movie name and rating). Write an appropriate C program to display all movie details.	(5)	CO5

OR

5.d)	Make use of structures in C to define a structure Employee having members employee ID, employee name, and salary. Write a program to read this information for 2 employees from keyboard and print the same on the screen.	(5)	CO5
5.e)	Develop a C program using structures to store passenger details (N*ame, Age, Train number, and Seat Number*).Display the passenger list for a given train number.	(5)	CO5

OR

5.f)	Develop a C program using structures to store participant details (P*articipant ID, Name, and Event name*).Display participants registered for a specific event.	(5)	CO5

····· End of question paper·····