



K. K. Wagh Institute of Engineering Education & Research, Nashik
(An Autonomous Institute From A.Y. 2022-23)

	SUMMER-2023		
	Exam Seat No.:		
	Academic Year:2022-2023	Semester:II	
	Name of Programme:B.Tech	Pattern:2022	
	Name of Course:Programming in C	Course Code:FYE221010	
	Max. Marks:60	Duration:2.50	

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 04 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

Question No. 1 Attempt following Question

- 1)
- (i) Explain any three pillars of computational thinking. (3M) (6) CO1
- (ii) Explain the top-down programming approach (3M)

Question No. 2 Attempt following Question

- 2)
- (i) Develop a C program to find out the area of a circle (3M) (6) CO3
- (ii) Develop a C program to find out the average marks of three subjects. (3M)

Question No. 3 Attempt following Question

3a) Explain for loop with example (5) CO3

OR

3b) Explain while loop with example (5) CO3

3c) Identify the type of (if any) error in the following code, rewrite the corrected code, and write the expected output.

```
#include <stdio.h>
int main()
{
    int i, s = 0;
    int n = 3;
    for ( i=0 i <= n; i++)
    {
        s = s+i;
    }
    printf("Sum = %d" ,s)
    return 0;
}
```

(5) CO5

OR

3d) Identify the type of (if any) error in the following code, rewrite the corrected code, and write the expected output

```
void main( )
{
    int i;
    for (i=0;i<5 i++)
    {
        int i = 10;
        printf( " %d" i);
        i++;
    }
    return 0;
}
```

(5) CO5

3e) Develop a C program to find out the factorial of a number using a loop (6) CO3

OR

3f) Develop a C program to perform the addition of the 2x2 matrix (6) CO3

Question No. 4 Attempt following Question

- 4a) Explain any five math functions (5) CO6

OR

- 4b) Explain the formal parameter and actual parameter with an example (5) CO6

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

```
int main()
{
    char arr[20]="MysticRiver";
    printf("%d", sizeof(arr));
    return 0;
}
```

(5) CO5

OR

- 4d) Identify the type of (if any) error in the following code, rewrite the corrected code, and write the expected output

```
int show()
void main()
{
    int a;
    a=show();
    printf("%d", a);
}
int show();
{
    return 15.5;
    return 35;
}
```

(5) CO5

- 4e) Develop a C program to perform concatenation and comparison of strings. (6) CO6

OR

- 4f) Develop a C program to print the cube of numbers using a function (6) CO6

Question No. 5 Attempt following Question

- 5a) List and explain the file processing functions. (5) CO4

OR

- 5b) Define the structure and explain how to initialize the structure (5) CO4

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

```
#int main()
{
    structure college
    {
        int id;
        char name[10];
    }a;
    strcpy(a.name, "KKWIEER");
    a.id=10;
    printf("%s", a.name);
    return 0;
}
```

(5) CO5

OR

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

```
#include<stdio.h>
void main()
{
    file *fp;
    fp = fopen("a.txt" "w");
    printf(fp, "kkwieer");
    fclose(fp);
}
```

(5) CO5

- 5e) Develop a C program to construct an array of structures for a book to accept and display ten book information with data members: name, author, price, and page. (6) CO4

OR

- 5f) Develop a C program to create a file name kkw.txt and write the content '**KKW is autonomous college**' inside the file. (6) CO4