



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

	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 greatest of two numbers (6) CO1

Question No. 2 Attempt following Question

- 2a) Write a program to get the price for rice and sugar from the user and display it in the following format (6) CO2

List of Items

Item Price

Rice Rs. 16.75

Sugar Rs. 15.00

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()
{
    int i;
    while(i=10);
    {
        printf("%d\n", i);
    }
}
```

```

        i+++
    }
    return 0;
}

```

OR

3b) What is loop and its types? Explain with suitable examples of each. (5) CO3

3c) What is an array in C? How to declare, initialize and read an array? Explain with an example (5) CO3

OR

3d) What is a nested loop? Explain with the example (5) CO3

3e) Write a program in C to calculate the total marks of 5 students scored in a course "Programming in C" using a one dimensional array (6) CO3

OR

3f) Write a C program to print the table of number 5 (6) CO3

Question No. 4 Attempt following Question

4a) What is the need for user-defined functions? State the difference between library and user defined functions (5) CO4

OR

4b) Which of the following function declarations are invalid? If invalid then explain why it is invalid. (5) CO4

float average (float x, float y, float z);

double power (double a, int n-1);

int product (int m, 10);

int mul (int x, y);

exchange (int a, int b);

4c) What is function prototyping? Why is it necessary? (5) CO4

OR

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

```

int abc (int a, int b)

```

```

{

```

```

    int c;

```

```

    c= a + b;

```

```

}

```

```

int main()

```

```

{

```

```

int a=5,b=6,c;

c=abc(a,b);

printf("%c", c);

}

```

- 4e) Write a program in C for calculating electricity bill using a function which accepts number of units consumed and rate per unit as a input and returns total bill amount (Number of units * rate) as an output (6) CO4

OR

- 4f) Write a program to check if a given number is odd or even using a function (6) CO4

Question No. 5 Attempt following Question

- 5a) What is the need for structure? State the difference between arrays and structure with examples (5) CO5

OR

- 5b) Write the general format of a structure definition. How to initialize and access the structure members? (5) CO5

- 5c) Describe with example different ways of assigning values to structure members (5) CO5

OR

- 5d) How to find the size of structures in C? Calculate and write size of following structure - (5) CO5
- struct item

```

{
    char name[20];

    float price;

    int quantity;

};

```

- 5e) Write a C program using structure to store the details of 5 books such as title, author, pages and price and display the details for all 5 books (6) CO5

OR

- 5f) Write a C program to Define a structure as struct personal that would contain person age, date of joining and salary. Using this structure, read this information for one person from the keyboard and print the same on the screen. (6) CO5