

# C Programming

## Problem List 2

### Topics:

1. Operators
2. Conditional Statements (if-else)
3. Loop Statements (for, while)
4. Basic Array

### Problem List on basic

#### SET A

1. Input a number and check if it is even or odd.
2. Find the largest of two numbers.
3. Find the smallest number among three numbers.
4. Print the number from 1 to 20 using loop.
5. Print the multiplication table of a given number using a loop.
6. Calculate the factorial of a number using a for loop.
7. Calculate the factorial of a number using a while loop.
8. Input marks and print grade (A, B, C, D, F).
9. Check if a number is positive, negative, or zero.
10. Print all numbers from 1 to 100 using a loop.
11. Check if a number is prime.
12. Find the sum of digits of a given number.
13. Reverse a number.

#### SET B

1. You have to buy two books. For each book, input the **unit price** and **quantity**.
  - Calculate the total price.
  - If the total quantity is more than 100 OR the total price is more than 2000, you will get 20% discount.
  - Print the total payable amount.
2. Input marks of a student in 5 subjects.
  - Calculate the GPA.
  - If average  $\geq 80 \rightarrow$  Grade A
  - If  $60 \leq \text{average} < 80 \rightarrow$  Grade B
  - If  $40 \leq \text{average} < 60 \rightarrow$  Grade C
  - Otherwise  $\rightarrow$  Fail
  - Print the grade.

3. Input the food bill amount.

- If the bill is above 2000, apply 10% discount.
- Then add 5% VAT to the discounted bill.
- Print the final payable bill.