

# SIR PADAMPAT SINGHANIA UNIVERSITY

---

## Home Assignment

Programme/Branch: B.Tech.

Semester: II

Subject: Structured Programming Approach

Subject Code: CS-1001

Date of Submission: On or before 26/03/3020

---

Q1.

**(a)** What will happen?

- I. When array elements are not initialized at the time of array declaration.
- II. When data type of a variables in function declaration does not match with the corresponding variable in the function header.
- III. When there is more number of values in the initialization list as compared to size of the array at the time of array declaration and initialization.

**(b)** Write a function that accepts an integer between 1 and 12 to represent the month number and displays the corresponding month of the year (For example if month=1, then display JANUARY). Also write the main Program.

Q2.

**(a)** Write the advantages of recursion in programming. Write a program to find the factorial of a given integer number

- (1) using recursion                      (2) without using recursion

**(b)** What is the need of initialization of an array in C programming? Explain static and dynamic array initialization with the help of suitable programming example.

Q3.

**(a)** Explain the use of storage classes in C programming language. Explain each storage in details with suitable programming example.

**(b)** Write a C program to search an element from a given list of 50 elements using array.

Q4. Write a C program to calculate the x to the power y where value of x and y integer variables are entered through keyboard. The program must have function to calculate x to the power y.

Q5.

- (a) Write a menu driven program to perform all basic arithmetic operations like addition, subtraction, multiplication and division between 2 values. Each operation must be implemented using separate function.
  
- (b) Write a program in C to find out the minimum and maximum integer values from the array elements.