

## **35236 – C PROGRAMMING PRACTICAL**

### DETAILED SYLLABUS

#### **OBJECTIVES**

At the end of the Course, the students will be able to

- Analyze the given problem.
- Think the logic to solve the given problem.
- Describe the concepts of constants, variables, data types and operators.
- Develop programs using input and output operations.
- Write programs using command line arguments.
- Write programs using compiler control directives.
- Write programs using different looping and branching statements.
- Write programs based on arrays.
- Write Programs using string handling functions.
- Write programs using user-defined functions, Structures and Union.
- Write programs using the concept of Pointers.

#### **LAB EXERCISES**

##### **PART – A**

1. Write a simple C program.
  - a. Print your name and address.
  - b. Find simple and compound interest
2. Write a C program to swap two variables' using
  - a. Third variable and
  - b. Without using a third variable.
3. Write a program to convert a given number of days into months and days using integer arithmetic operators.
4. Write a program the use of variables in expression and their evaluation.
5. Write a program converts the given temperature in Fahrenheit to Celsius using preprocessor.
6. Write a program to find the largest number between given three numbers.
7. Write a program to perform following tasks
  - a. Find factorial of a number
  - b. Print prime numbers up N times.
8. Write a program to prepare the total marks for N students by reading the Reg.No, Name, Mark1 to Mark6 by using array of structures.

9. Write a program using the function power (a,b) to calculate the value of a raised to b.
10. Write a program to find the length of the given string using pointers.

**PART – B**

1. Read an integer number, find the number of digit and sum of all individual digits and also print the above number in reverse order.
2. Write a program to perform following tasks
  - a. Print Fibonacci series up to N terms and its sum.
  - b. Print whether a given year is leap or not.
3. Read a sentence through command line argument. Write a program to write out the string arguments to main in reverse order.
4. Write a program to arrange the given N names in alphabetical order.
5. Write a program to count the numbers and chars in the string.
6. Write a program that uses a function to sort an array of integers.
7. Write a program to calculate the subject wise and student wise totals and store them as a part of the structure.
8. Write a program to read 10 values to an array variable. Use pointers to locate and display each value.
9. Write a program that uses a table of integers whose size will be specified interactively at run time.
10. Write a program to store a character string in a block of memory space created by MALLOC and then modify the same to store a larger string.