# KEC

## LABORATORY FORMAT

## Laboratory session schedule - Computer related labs

LT-09
2
06-07-07
14

DEPARTMENT

: Computer Science and Engineering

INSTRUCTOR IN-CHARGE

: PCD.Kalaivaani

CO-INSTRUCTORS

: C.Sagana

K.S.Kalaivaani

COURSE NAME

: 14CSL32-Object Oriented Programming Using C++ Laboratory

CLASS

: II- CSE'C'

SEMESTER

: III

### LIST OF EXPERIMENTS/EXERCISES

1. Design C++ classes with data members and member functions

2. Design C++ classes with static members and member functions with default arguments

3. Design C++ classes with friend functions and function overloading

4. Program using different types of constructors and destructor

5. Implement Matrix class with dynamic memory allocation and necessary methods.

6. Implement complex number class with unary and binary operator overloading.

7. Overload the new and delete operators to provide custom dynamic allocation of memory.

8. Implement different types of Inheritances

9. Develop suitable hierarchy of classes to demonstrate dynamic polymorphism

10. Implement programs with sequential access and random access file.

11. Develop function templates of standard sorting algorithms such as bubble sort-insertion sort

12. Design stack and queue classes with necessary exception handling.

13. Program to create simple manipulator and namespace.

### REFERENCES / MANUALS / SOFTWARE:

1. Linux Operating System

2. C ++ Compiler

#### **Course Outcomes:**

On completion of the course, the students will be able to

- •identify and create objects and their members for a given problem
- experiment the use of friend function, static function, constructor and destructor
- •develop programs using various types of operator and function overloading
- •demonstrate the use of RTTI- inheritance and runtime polymorphism
- apply the concepts of files and templates

INSTRUCTOR IN-CHARGE
(Bed Galawaan)