# **UNIVERSITY OF MADRAS**

# B.Sc. DEGREE COURSE IN COMPUTER SCIENCE SYLLABUS WITH EFFECT FROM 2020-2021

BCE-CSC12

### **CORE-XII: PRACTICAL – V (OPERATING SYSTEM LAB)**

(Common paper to B.Sc.Software Applications & B.C.A.)

III YEAR / V SEM

#### **OBJECTIVES:**

- To learn Process management and scheduling.
- To understand the concepts and implementation of memory management policies.
- To understand the various issues in Inter Process Communication.

## **OUTCOMES:**

- Understand the process management policies and scheduling process by CPU.
- Analyze the memory management and its allocation policies.
- To evaluate the requirement for process synchronization.

#### **PROGRAM LIST:**

- 1. Basic I/O programming.
  - To implement CPU Scheduling Algorithms:
- 2. Shortest Job First Algorithm.
- 3. First Come First Served Algorithm.
- 4. Round Robin and Priority Scheduling Algorithms.
- 5. To implement reader/writer problem using semaphore.
- 6. To implement Banker's algorithm for Deadlock avoidance.
  - Program for page replacement algorithms:
- 7. First In First Out Algorithm.
- 8. Least Recently Used Algorithm.
- 9. To implement first fit, best fit and worst fit algorithm for memory management.
- 10. Program for Inter-process Communication.