



End Term Examinations (April/May 2019)

School : School of Engineering

Program: B.Tech. Computer Engineering

Course: Operating System

Course Code: CSC 244

Semester: IV

Max Marks: 50

Duration (mins) : 120

Q1. ATTEMPT ANY FIVE FROM THE FOLLOWING.

EACH QUESTION CARRIES 10 MARKS :

- a) Answer the following:
 - a. Deadlock and state two necessary conditions for deadlock.
 - b. System call and state two examples of communication system calls.
 - c. Multithreading and state any two multithreading models.
 - d. Scheduling and state two approaches of scheduling.
 - e. Draw PCB structure for process.

- b) Why interprocess communication is required? State two types of interprocess communication. Explain any one Model. Give its advantages.

- c) Explain concept of context switching for processes. Draw diagram and explain.

- d) What is process and how is it different from program? State and explain different states of process using graphical representation.

- e) How does operating system perform memory management? Explain memory management using concept of segmentation and paging.

- f) Calculate average waiting time for Shortest Job First (SJF- Preemptive) for following table:

Process	Arrival time	Burst Time
P1	0	8
P2	1	4
P3	2	9
P4	3	5

Draw Gantt chart for processes. Also write formulae for the values derived to calculate waiting time.