

Code: CE6T6FE-C , EE6T6FE-D

**III B.Tech-II Semester–Regular/Supplementary Examinations–March 2018**

**OPERATING SYSTEMS**  
**(Common for CE & EEE)**

Duration: 3 hours

Max. Marks: 70

**PART – A**

Answer *all* the questions. All questions carry equal marks

11x 2 = 22 M

1. a) What are the three main objectives of an operating system?
- b) Define System Call? List out any two Process Control System Calls.
- c) Describe the typical elements of the process scheduling.
- d) What are the properties of CPU Scheduling Algorithms?
- e) What is meant by deadlock characterization?
- f) What is deadlock recovery?
- g) What is meant by Paging? Write any two advantages of paging.
- h) What is meant by Demand Paging?
- i) What are the various file related system calls?
- j) Write short notes on FIFOs.
- k) What are the benefits of IPC?

## PART – B

Answer any *THREE* questions. All questions carry equal marks.

3 x 16 = 48 M

2. a) Explain the Dual-Mode operation of an operating system. 8 M
- b) List five services provided by an operating system. Explain how each provides convenience to the users. 8 M
3. a) What are the various operations on processes? Explain. 8 M
- b) Write detailed notes on Shortest-Job-First Scheduling. 8 M
4. a) Write Peterson's Solution to the critical section problem. 8 M
- b) Explain Banker's Algorithm for deadlock avoidance. 8 M
5. a) Illustrate the basic method and hardware support for paging. 8 M
- b) Write brief notes on FIFO and LRU page replacement algorithms. 8 M

6. a) What is disk scheduling? Explain any two disk scheduling algorithms. 8 M
- b) Explain various process related system calls. 8 M