

N-3/2050
OPERATING SYSTEM-323
(Semester-VI)

Time : Two Hours]

[Maximum Marks : 75

Note : Attempt any *four* questions. All questions carry equal marks.

- I. Write short note on the following :
- (a) Personal Computer System.
 - (b) Distributed operating system.
 - (c) Operating System components.
 - (d) System Calls.
- II. (a) Explain FCFS and Round Robin scheduling techniques with example.
- (b) Differentiate between Multiprogramming and Time Sharing operating systems.
- III. (a) Discuss various criteria used to measure CPU performance.
- (b) Why there is a need of an operating system. Explain.
- IV. What do you understand by a process? Draw the state transition diagram and explain the purpose of each state.

- V. What do you mean by virtual memory? How it is implemented? Explain in detail.
- VI. (a) What are deadlocks? Explain necessary conditions for occurrence of deadlocks.
- (b) Compare contiguous and linked file allocation methods.
- VII. Explain in detail various disk scheduling algorithm with the help of an example.
- VIII. Explain various page replacement algorithms in detail.
- IX. (a) Discuss multiple queue scheduling algorithm.
- (b) Discuss logical versus physical address space.
- (c) Write main features of distributed operating system.
- (d) Differentiate between a process and a thread.
- (e) Briefly discuss working of a batch operating system.
- (f) Discuss how deadlocks can be avoided?
- (g) What do you mean by thrashing?
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