

E-271

B. C. A. (Second Semester) Examination, June 2014

(Course : 2012-13 / 2010-11)

(For Regular / ATKT / Ex-Students)

OPERATING SYSTEMS

Time Allowed : Three hours

Maximum Marks : 50

Note : Attempt all five questions. All questions carry equal marks. All symbols have their usual meaning.

1. Explain the term : Waiting time, Turnaround time, Response time and Throughput. What is time slice?

E-271

PTO

Or

Explain the following terms :

- (i) Bootstrap program
- (ii) Symetric multiprocessing
- (iii) Scheduler
- (iv) Job pool

2. What is PCB? Enumerate and explain various fields in PCB. What is semaphore?

Or

What do you understand by deadlock recovery? Explain how resource-allocation graph is used to describe dead locks?

3. What do you understand by logical and physical address space? Differentiate between internal and external fragmentation. How are they overcome?

Or

What do you understand by paging and segmentation? Explain in detail.

4. For a given reference strings : 1, 2, 3, 4, 1, 2, 5, 1, 2, 3, 4, 5. Using LRU algorithm of page replacement. Compute

E-271

number of page faults for number of frame = 3 and
number of frame = 4.

Or

What do you understand by Virtual Memory? Explain
demand paging in detail.

5. What is File? Describe the different access methods on
file.

Or

Explain contiguous, linked and indexed methods of
allocating disk space.