



M 8131

Reg. No. : .....

Name : .....

**VI Semester B.Sc. Degree (CCSS-Reg./Supple./Improv.)**  
**Examination, May 2015**  
**CORE COURSE IN COMPUTER SCIENCE**  
**6B16 CSC : Operating System**

Time : 3 Hours

Max. Weightage : 21

**SECTION – A**

(Answer **all** questions. Weightage for a Bunch of 4 questions is 1.)

1. Mutual exclusion problem occurs between
  - a) Two disjoint processes that do not interact
  - b) Processes that share resources
  - c) Processes that do not use the same resource
  - d) None of the above
2. A page fault occurs
  - a) When the page is not in the memory
  - b) When the page is in the memory
  - c) When the process enters the blocked state
  - d) When the process is in the ready state
3. Which of the following is crucial time while accessing data on the disk ?

a) Seek time	b) Rotational time
c) Transmission time	d) Waiting time
4. Which technique was introduced because a single job could not keep both the CPU and the I/O devices busy ?

a) Time-sharing	b) Spooling
c) Preemptive scheduling	d) Multiprogramming

5. Logical memory is broken into blocks of the same size called \_\_\_\_\_
- a) frames
  - b) pages
  - c) backing store
  - d) none of these
6. If the quantum time of round robin algorithm is very large, then it is equivalent to
- a) first in first out
  - b) shortest job next
  - c) lottery scheduling
  - d) none of the above
7. "Throughput" of a system is
- a) Number of programs processed by it per unit time
  - b) Number of times the program is invoked by the system
  - c) Number of requests made to a program by the system
  - d) None of the above
8. Linux is
- a) multi user operating system
  - b) time sharing operating system
  - c) multi tasking operating system
  - d) all of the above

(2×1=2)

## SECTION – B

(Answer **any five** questions. Weightage **1** for **each**.)

9. Define a light weight process.
10. Differentiate between pre-emptive and non pre-emptive scheduling.
11. Why CPU scheduling is required ?
12. What is process interaction ?
13. What is starvation ?
14. Define Trashing.
15. How fragmentation occurs in memory ?
16. Give a brief note on multiprogramming.

(5×1=5)

SECTION – C

(Answer **any five** questions. Weightage **2** for **each**.)

- 17. What are different types of operating systems ? Explain in detail.
- 18. What are real time operating systems ? How they are implemented ?
- 19. Define process. What are various states of a process ?
- 20. Explain Banker's algorithm for solving deadlock problem.
- 21. Discuss the concept of demand paging.
- 22. What you mean by swapping ?
- 23. Discuss the Linux operating system.
- 24. Give a note on virtual memory. (5×2=10)

SECTION – D

(Answer **any one** question. Weightage **4** for **each**.)

- 25. Discuss paging in detail.
- 26. Discuss the different process scheduling algorithms. (1×4=4)

(2×1=2)

(5×1=5)