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

P.T.O.

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)**
