

D 31385

(Pages 2)

Name

Reg. No.....

**THIRD SEMESTER M.Sc. DEGREE EXAMINATION
DECEMBER 2012**

(CUCSS)

Computer Science

CSC 3C 01— OPERATING SYSTEMS

(2010 Admissions)

Time : Three Hours

Maximum : 36 Weightage

Part A

*Answer **all** questions.*

Each question carries 1 weightage.

1. List the functions of operating systems.
2. What is an API? List the executive modules in Windows 2000
3. Explain the important characteristics of **Linux** loadable modules.
4. Define Process. What is a PCB?
5. Define Thread. Explain the concept of multithreading.
6. Explain "**Concurrency**" and "mutual exclusion".
7. Explain the concept of paging in main memory.
8. Explain the concept of virtual memory.
9. Differentiate internal and external fragmentation.
10. Differentiate preemptive and non-preemptive scheduling.
11. Briefly explain round robin scheduling.
12. Explain Buffering.

(12 x 1 = 12 weightage)

Part B

*Answer any **six** questions.*

Each question carries 2 weightage.

13. Discuss Windows 2000 architecture.
14. Draw a block diagram illustrating **Linux** Kernel components.

Turn over

15. Write a note on process creation.
16. Explain **Linux** Process/thread model.
17. Explain address translation in **Linux** virtual memory scheme.
18. Explain windows virtual address map.
19. Explain deadline scheduling used in **RTOS**.
20. Write notes on indexed Sequential File.
21. List key features of **NTFS**.

(6 x 2 = 12 weightage)

Part C

*Answer **any three** questions.
Each question carries **4 weightage**.*

22. Discuss **UNIX SVR4 process management**.
23. **(a)** Explain the Producer-consumer problem.
(b) Write notes **on Unix concurrency mechanism**.
24. Give a detailed **account of Unix memory** management.
25. Discuss the salient features of **Linux Scheduling**.
26. Explain aspects of multiprocessor scheduling.
27. Discuss the features of **UNIX SVR4 I/O**.

(3 x 4 = 12 weightage)