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THIRD SEMESTER M.Sc. DEGREE EXAMINATION, DECEMBER 2012

(Non-CUCSS)

Computer Science

CS 301—OPERATING SYSTEM

(2005-2009 Admissions)

Time : Three Hours

Maximum : 80 Marks

Part A

Answer any **five** *questions.*
Each question carries 8 marks.

1. Briefly discuss any four significant features of modern operating systems.

2. Explain briefly the UNIX architecture.

3. Differentiate between user level threads and kernel level threads. List the advantages and disadvantages of each.

4. Define briefly the general areas of requirements for a real time operating system.

5. Discuss briefly the kernel mode components of Windows 2000.

6. Explain the concept of I/O buffering.

7. Briefly explain the virtual memory implementation of LINUX.

(5 x 8 = 40 marks)

Part B

Answer any **four** *questions.*
Each question carries **10** *marks.*

8. Explain how multithreading and symmetric multiprocessing are supported in Windows.

9. Explain the various mechanisms implemented in UNIX for- interprocess communication and synchronization.

10. Explain how memory allocation and paging are performed in Windows.

11. Discuss UNIX SVR4 scheduling.

12. Explain clearly the priority-driven scheduling implemented in Windows.

13. Explain Windows I/O management.

(4 x 10 = 40 marks)