B.E. (FULL-TIME) DEGREE END SEM EXAMINATIONS
ELECTRICAL AND ELECTRONICS ENGINEERING
II SEMESTER
EE 9029: OPERATING SYSTEMS (R-2008)

Time: 3 Hours Max. Marks: 100

Answer ALL Questions

PART – A (10 x 2 = 20 Marks)

1 What is the main difficulty that a programmer must overcome in writing an operating system for a real-time environment?
2 What is the purpose of system call and system call?
3 Define semaphore and types.
4 Define the difference between preemptive and nonpreemptive scheduling.
5 Why are page sizes always powers of 2?
6 Give an example of an application in which data in a file should be accessed in the following order:
- Sequentially
- Randomly

7 How does DMA increase system concurrency? How does it complicate hardware design?
8 Distinguish between a STREAMS driver and a STREAMS module.
9 Why is it difficult to protect a system in which users are allowed to do their own I/O?
10 What types of networking does Windows XP support?

PART – B (5 x 16 = 80 Marks)

11 a (i) Compare the technical feature of *Linux* and *windows* operating systems
(ii) Describe the process scheduling in solaris-2 windows-2000 and linux OS.

12 a (i) Write in detail about the evolution of operating system .

OR

12 b (i) List the system components of operating system and explain them
(ii) Discuss about layered approach. What is the main advantage and disadvantages of the layered approach to system design?

13 a (i) Write in detail about Inter Process Communication with proper examples.

OR

b (i) What are the four deadlock conditions? Explain in detail
(ii) List the various CPU scheduling algorithms. Consider the following set of processes that arrive at time 0, Find out the average waiting time under FCFS, SJF & RR scheduling.

Process	Burst Time
P1	24
P2	3
P3	3