2007 Jawaharlal Nehru Technological University M.C.A Computer Aplications

OPERATING SYSTEM

MCA II SEMESTER

Time: 3 hours

Max.Marks: 60

R6
Code No: R6-22/MCA

Answer any FIVE questions
All questions carry equal marks
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1. a) What are the activities involved in connection with process management and memory management for which OS is responsible?
b) What is the purpose of interrupts? What are the difference between a trap and an interrupt?

2. a) What is the process control block? What is the information it contains?
b) Distinguish between preemptive and non-preemptive scheduling. Give examples for each of them?

3. a) Describe the swapping policy of an OS.
b) What is paging? Describe page replacement approach in an OS.

4. a) Describe free management activities.
b) Describe indexed allocation of disk space. What are the advantages and disadvantages of this
method over linked allocation ?

5. a) What is a critical section problem ? Suggest a classic software based solution.
b) What is a sleeping-barber problem? Suggest a software solution.

6. a) What is deadlock? How deadlock problems be handled?
b) Describe Banker's algorithm.

7. a) Give components of LINUX system. Describe the role of Kernel module.
b) Describe LINUX approach for management of physical memory.

8. a) Describe Microsoft's design goals for Windows-XP.
b) Describe the working of a virtual memory manager of Windows-XP.