Code No: OR321251 **OR**

III B.Tech II Semester Supplementary Examinations, April/May 2005
OPERATING SYSTEMS & SYSTEMS PROGRAMMING
(Information Technology)

Time: 3 hours **Max Marks: 70**

Answer any FIVE Questions
All Questions carry equal marks

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1. Define the following:
   (a) Data structure
   (b) Macro processor
   (c) Loader
   (d) Process
   (e) Dead lock
   (f) Cache
   (g) Protection
2. Discuss the salient features of direct linking loadar. Also discuss its hardware details.
3. Explain the evaluation of various components of a programming system.
4. Write the performance criteria to be considered for processor scheduling and discuss, briefly, the various scheduling algorithm evaluation method. Also mention their merits and demerits.
5. (a) A computer has six tape drives with n processes computing for them. Each process may need two type drives. For which value of n is the system is deadlock free? Justify your answer.
   (b) Can a system be in a stats that is neither deadlock free nor safe? If so give an example, if not, prove that all states are either deadlock or safe.
6. Enumerates and explain any page replacement algorithm with the help of an examples. Compare with other methods.
7. (a) What is thrashing? Discuss working set model approach to avoid thrashing.
   (b) Discuss various free space management methods.
8. (a) Discuss about protection aspects of an operating system.
   (b) Discuss about security aspects in Unix operating system.

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