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**Unit-II**

Roll No. ....

Printed Pages : 3

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**OPERATING SYSTEM**

**Paper-CSE-307**

*Time allowed : 3 hours*

*[Maximum marks : 75]*

*Note : Attempt any five questions, selecting at least one question from each unit. All questions carry equal marks.*

**Unit-I**

1. (a) What is the use of Access Matrix to protect the resources ? Explain its implementation.  
(b) What is the difference between preemptive and non-preemptive scheduling policies ? Discuss using suitable examples.
2. (a) What is throughput ? "Shortest Remaining Time Next (SRTN) and Shortest Job First (SJF) try to maximize throughput". Comment.  
(b) What are the different security threats to the file system ? What are the goals of protection ? Discuss.

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3. (a) What is SCAN algorithm for disk scheduling ? Explain.  
(b) What do you understand by segmentation ? Discuss the address translation in segmented systems.
4. (a) What is the difference between internal and external fragmentation ? What is compaction ? What are the merits and demerits of compaction ? Discuss. <http://www.kuonline.in>  
(b) What is the common drawback of all the real memory management techniques ? How is it overcome in virtual memory management schemes ?

**Unit-III**

5. What is the difference between deadlock avoidance and deadlock prevention ? Discuss. Write a detailed note on Banker's algorithm.
6. What is Bounded Buffer problem ? Discuss briefly with the help of Producer and Consumer Process.

**8504**

( 3 )

**Unit-IV**

7. Comment on the validity of the following statement :  
"The Unix scheduling policy favors interactive process over non-interactive processes".
8. (a) What CPU scheduling is used in UNIX ? Explain.  
(b) Write a note on storage management in DOS.