PES UNIVERSITY

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Department of Computer Science & Engg

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UE19CS254: Operating Systems

UNIT 3 Question Bank

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	Chapter 8 Main Memory
1.	What are the benefits of dynamic link over static linking?
2.	What are the types of address binding
3.	What are the drawbacks of non-contiguous memory allocation method
4.	Explain with the help of supporting diagram how TLB improves the performance of a demand paging system.
5.	Given memory partitions of 100 KB, 500 KB, 200 KB, 300 KB and 600 KB (in order) how Would each of the first fit, best fit and worst fit algorithms work place processes of 212 KB, 417KB, 112 KB and 426 KB (in order)? Which algorithm makes the most efficient use of memory?
6.	Consider the following segment table: Segment Base Length 0 219 600 1 2300 14 2 90 100 >2 3 1327 580 4 1952 96 What are the physical addresses for the following logical addresses? a. 0,430 b. 1,10 c. 2,500 d. 3,400 e. 4,112
7.	How the processes are protected from each other during their execution?
8.	What is paging? What is the hardware support for paging?
9.	What is the hardware support for segmentation?
10.	What is segmentation? Explain with an example
11.	Differentiate between internal and external fragmentation. What is the Solution to external fragmentation
12.	How to convert logical address to physical address?
13.	What is the use of Valid-Invalid Bits in Paging?
14.	Ho swapping is different from paging?
	Chapter 9 Virtual Memory
1.	What is demand paging and how pure demand paging is different from it.
2.	What is virtual memory and give its advantages.
3.	Difference between Physical and logical address

4.	Consider the reference stream 1,2,3,4,2,1,5,6,2,1,2,3,7,6,3,2,1,2,3,6 for a particular process execution. How many page faults while using FIFO and LRU page replacement algorithms using 4 frames?
5.	What are the methods of handling the page faults?
6.	What is thrashing? What are the causes for thrashing?
7.	What are the methods for handling thrashing?
8.	What is the use of Valid-Invalid Bits in demand Paging?
9.	How is memory protected in a paged environment?