Con. 6618–10.  (3 Hours)  [Total Marks: 10]  Instructions: - 1) Question No 1 is compulsory; solve any 4 questions from remaining 6 question.  2) Assume suitable data wherever necessary.  3) Figures to the right indicate full marks.  1. a) What is mutual exclusion. Explain semaphore used for mutual exclusion.  (b) Explain LINUX concurrency control method.  2. a) Explain Operating system as an extended machine while explaining its seven functions.  (b) Explain different types of disk scheduling algorithm.  3. a) What is deadlock. Explain Banker, algorithms for deadlock avoidance.  (b) Explain segmentation in detail. Describe how logical address is converted in to physical address.  4. a) Explain file allocation methods in detail.  (b) Explain file management method in LINUX OS.  (b) Explain file management method in LINUX OS.  (c) (d)  (d)  (d)  (d)  (d)  (d)  (d)  (d)	7 Dec 2010		5. E/ Com/	SemIV	
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for following page frames sequence, page frame size is 3.  4,7,3,0,1,7,3,8,5,4,5,3,4,7	sharing b) Calculati Car follow	e hit and miss using va ving page frames sequ	arious page replacement uence, page frame size i	t methods (LRU, OPTIMAL, FIFC	(10) (10)

4,7,3,0,1,7,3,8,5,4,5,3,4,7

7. a) Draw and explain paging hardware with TLB. (10)
b) What is buffer cache? Write advantages and disadvantages of buffer cache in LINUX OS.(10)