Devanshy	Surana 5, PC-12		Page No.	
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1219	Lab Assignment 7			
	Title: Memory Management (Page	Replacement	Algorithms)
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	that edget and our hads			
	Page table:		rec block	
125/12	Entire page table may take up Page tables are also stored in When a process is running in main memory It is a data structure use system in a computer operation	part of i	ts page - irtual m	table is emory the
	Frame table:	Algorithm.	Jis - Perol	
sanifice to	The simplest page table system	n often m	naintain a	a Frame
milt.	table and page table.	neeld an	2 dt pason	
	The frame table holds informa			
0	hold information about which to statistics information or other	address s	pace a po	ige belongs
	Hardware support required to	implement	t paging.	
To che	Hardware support required to In Simplest case the page tal	ble is execu	ting as a	set of
Sont	dedicated registers. These regist high-speed logic to make the	e paging-	address t	ranslation
12 13	efficient.	1	13 32000	
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First-fit Algorithm:

Scans memory from the beginning and chooses the first available block that is large enough.

It is fastest.

May have many processes loaded in the Front end of menus that must be searched over when typing trying to find a Free block.

Best-fit Algorithm:

Chooses the block that is closer in size to request Worst performer overall

Since smallest block is found for process, the smallest amount of fragmentation is left. Memory compaction must

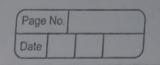
Worst - Fit Algorithm.

Allocates a process to the partition which is largest sufficient among the freely available partitions available in the main memory.

then memory will not have space to accommodate it.

Ans 3) Main memory is partitioned into equal fixed size chunks that are relatively small called frames. Each process is divided into small fixed churts of same size called pages. At a given point of time,

some frames are in use and some are free. Suppose process A stored on list disk, consists of 4 pages. When process is to be loaded, as finds 4 free frames and loads A' pages. These trames need not to be contingous. Os maintains a page table for each process



Page table consists of trame location for each page of the process. Paging in 08 uses a data structure carried our Page table.

Ans 4) Virtual memory is a memory management technique where secondary memory can be used as if it were a part of main memory. It uses a both hardware and software to enable a computer to compensate for physical memory shortages, temporarily transfering data from random access memory to disk storage.

Memory references are dynamically translated into physical addresses at run time. A process may be broken up into pieces that do not need to located contigously in main memory. All pieces of a process do not need to be loaded in main memory during execution.

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