

CSCI 114 Practice 5

- 1) Internal fragmentation is when the memory is divided into partitions with fixed sizes. If the page is too small the rest of the partition is wasted. If the page is too large a second fragment would be used to hold data which would result in wasted memory for the second partition.
- 2) The operating system does this so it knows where there is space to place the memory. It is also for security purposes, zeroing the memory prevents the new program from gaining access to the previous programs data unintentionally.
- 3) Paging allows efficient memory allocation, disk transfers, lookup, reverse lookup, and page-granularity protection and sharing.

4)

LRU

	A	C	B	D	B	A	E	F	B	F	A	G	E	F	A
1	A					x					x				x
2		C					E					G			
3			B		x				x				E		
4				D				F		x				x	

MIN

	A	C	B	D	B	A	E	F	B	F	A	G	E	F	A
1	A					x					x				x
2		C					E						x		
3			B		x				x			G			
4				D				F		x				x	

Clock

	A	C	B	D	B	A	E	F	B	F	A	G	E	F	A
1	A0					A1	A0	F0		F1				F1	
2		C0					E0						E1		
3			B0		B1				B1		B0	G0			
4				D0							A0				A1