## Assignment 5

1. forst-fit

free	1910	PI	P3	free	1911	free	PIZ	free	P13	PZ	free
100	110	1515	1115	1176	120	1200	130	1300	140	1417	183
P4 C	annol	bey	dace	d.							

best-At

				-								
10	111	10-1	1	0.1	0-1		1	- 1	-	1	1	
1+100	1110	11/1	+100	111	1)3	11000	DIS	PII	1	0121	011	1
free		1.	1.00	, , ,	( )	THEE	112		tree	1115	141	11001
1100	110	11,00	100			1				,		
100	110	141/	186	150	(11)	100	130	171	00	140	1471	174
		-		1	1115	100	110	121	10%	110	1726	117

worst-fit

100 10 417 83 20 200 30 300 40 212 112 2	ree	Ifre	P3	PI	P13	1	frep	P12"	fee	P11.	free	1P21	P10	free	
	76	12-	1112	212	40		1	1					10	100	
P4 cannot be placed.										ced.	pla	st be	avvins	)4 c	

next-fit

free PIO	PI	freelf	211   fre	cel P/2	Pree	PB	P2	P3	Tree
1001101		1	20   20	0/30	1300	140	1417	1112	1711
P4 canno	t be pl	aced.							

2.	Logical					
	address	Number	Officet	oddress		
	1027	2	3	3	1027=2×512+3	0x512+3=3
	5028	4	10	522	2058 = 4×512+10	1 × 5 12 + 10 = 522
	522		10	522	522 = 1×512+10	1×512+10=522
	5	0	5	1541	5=0×512+5	3 x 572 + 5 = 1541
	2047	3	511	2559	2047=3×512+511	4×512+511=259

3. a) 2KiB = 2048 = 2" 232/2"=2" entres

b) 128 MiB = 227 2KiB = 2" 227/2" = 216 entries

4. a) time = look up table time + reference page time = 150ns + 150ns = 300ns

b) thme =  $(1-0.8) \times (20ns + 2 \times 150) + 0.8 \times (20ns + 150ns)$ =  $0.2 \times 320ns + 0.8 \times 170ns$ = 64ns + 136ns= 200ns

S. LRU



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1		21	11	41	2	1	5	4	71	51	4		4	17	41	21	1	7	
		1		1			1		4	4		4		4		4		7	
		2		2			2	2	2	15		5		17		2		12	
				4			5	5	7	7		1		11		11			
	1	2		3			4	5	4	7		8		9		10		11	

Il page faults

Optimal

														-	-	-		-		-
1	1	2	1	4	2	1	5	2	4	71	5	4	1	4	1	11	4	2	1	7
	1	1		1			5			5			11					1		
		12		12			12			17			17					17		
				4			14			14			14			1	1	12		
				-			-	1	1	-			6					7		

7 page faults

