

Group 60

Q.1

a.i Each page frame's counter is initialized to 0

ii: when a page is referenced, the counter will be increase

iii: At certain intervals or when a page fault ~~oc~~ occurs, the counter will be decreased by a fixed amount

iv: when a page fault occurs the page frame will the smallest counter value is selected for replacement. when all counter value are same, we use FIFO page replacement.

b:

1	2	3	4	5	3	4	1	6	7	8	7	8
1	1	1	1	5			5	6	6	8		
	2	2	2	2			1	1	7	7		
		3	3	3			3	3	3	3		
			4	4			4	4	4	4		
9	7	8	9	5	4	5	4	2				
8				8	8	8	8	8				
7				7	7	7	7	7				
9				9	9	9	9	9				
4				5	4	5	4	2				

∴ 15 page fault

C:

1	2	3	4	5	3	4	1	6	7	8	7	8	9
1	1	1	1	1				6	6	8			8
	2	2	2	5				5	5	5			5
		3	3	3				3	7	7			7
			4	4				4	4	4			9
7	8	9	5	4	2								
			8	2									
			5	5									
			4	4									
			9	9									

for an optimal page replacement

11 page fault