5.

a)

FIFO

Page ref string	0	1	7	0	1	2	0	1	2	3	2	7	1	0	3	1
Memory 3 frames	0	1	7	7	7	2	0	1	1	3	2	7	1	0	3	3
		0	1	1	1	7	2	0	0	1	3	2	7	1	0	0
			0	0	0	1	7	2	2	0	1	3	2	7	1	1
Page fault?	√	√	√	X	X	√	√	√	X	√	√	√	√	√	√	X

Page Ref String	0	3
Memory 3 frames	3	3
	0	0
	1	1
Page fault?	X	X

Total # of page faults: 12 page faults for FIFO

5
b)

Page ref string

Page ref string	0	1	7	0	1	2	0	1	2	3	2	7	1	0
Memory	0	1	7	7	7	2	2	2	2	2	2	7	7	0
		0	1	1	1	1	1	1	1	1	1	1	1	1
			0	0	0	0	0	0	0	3	3	3	3	3
Page fault?	V	V	V	X	X	V	X	X	X	V	X	V	X	V

Page ref string	3	1	0	3
Memory	0	0	0	0
	1	1	1	1
	3	3	3	3
Page fault	X	X	X	X

Total # of page faults: 7 for optimal algo.

5 c)

LRU

Page ref number	0	1	7	0	1	2	0	1	2
Memory	0	1	7	7 0	1	1 2	0	1	2
			0	1	7	0	0 1	2	0	1
				0	1	7	2 0	1	2	0
Page fault?	V	V	V	X	X	V	X	X	X

Total # of pg faults: 9

Page ref num	3	2	7	1	0	3	1	0	3
Memory	3	2	7	1	0	3	1	0	3
	2	3	2	7	1	0	3	1	0
	1	1	3	2	7	1	0	3	1
Page fault?	V	X	V	V	V	V	X	X	X