

Q1

	A	D	D	C	C	B	A	B	E	F	A	A	D	D	C	F	A	C	D	D	E	H	B	B	D	B
0	A						+		E		A	+				+					E		B	+		+
1						B		+	F						+			+					B	+		+
2				C	+										+			+								
3	D	+											+	+					+	+		H			D	
	E	C	B	B	E	D	B	B	D	G	H	D	B	C												
0	+				+																					
1			+	+			+	+					+													
2		+								G				C												
3					+	+			+	H	D															

Total his = 25    Total = 40  
 Hit Ratio =  $25/40 = 0.625$

Q2 LRU

Q2 LRU																									
	A	D	D	C	C	B	A	<del>B</del>	<del>E</del>	F	A	A	D	D	<del>C</del>	C	F	A	C	D	D	E	H	B	B
0	A						+			+	+						+					+			
1						B		+					D	+						+	+				
2				C	+					F							+				E				
3		D	+						E										+				B	+	
	D	B	E	C	B	B	E	D	B	B	D	G	H	D	B	C									
0				C								G													
1	+							+			+			+											
2			+				+						H			C									
3		+				+	+			+	+				+										

total hit = 25      total memory = 40

hit ratio =  $25/40 = 62.5\%$

LFU

LPU		A	D	D	C	C	B	A	<del>B</del>	<del>E</del>	F	A	A	D	D	<del>C</del>	C	F	A	C	D	D	E	H	B	B
0	A							+			+	+						+								
1							B		+	E	F							+								
2					C	+											+			+						
3		D	+											+	+						+	+	E	H	B	+
	D	B	E	C	B	B	E	D	B	B	D	G	H	D	B	C										
0																										
1																										
2					+	B	+			+	+					+	C									
3	D	B	E				+	D			+	G	H	D												

total hit = 22

total memory = 40

$22/40 = 55\%$  (hit ratio)

Q2 FiFO

	A	D	D	C	C	B	A	B	E	F	A	A	D	D	<del>C</del>	C	F	A	C	D	D	E	H	B	B
0	A						+	E							<del>/</del>	C			+						
1						B		+					D	+	<del>/</del>					+	+			B	+
2				C	+						A	+			<del>/</del>		+					H			
3		D	+							F					<del>/</del>		+					E			
0	D	B	E	C	B	B	E	D	B	B	D	G	H	D	B	C									
1		+			+	+		+	+			G	H			C									
2							E								B										
3			+	C										D											

total hit = 20 total memory = 40

hit ratio =  $20/40 = 50\%$



Q 3

LFU

	A	D	D	C	C	B	A	B	E	F	A	A	D	D	C	F	A	C	D	D	E	H	B	B
0	A						+			+	+					+								
1						B		+	E	F						+								
2				C	+											+		+						
3	D	+											+	+					+	+	E	H	B	+
	D	B	E	C	B	B	E	D	B	B	D	G	H	D	B	C								
0																								
1																								
2				+	B	+			+	+					+	C								
3	D	B	E				+	D			+	G	H	D										

total hit = 22 total memory = 40

hit ratio =  $22/40 = 55\%$

the best ratio is 62.5% which is LRU strategies.

Q 3 FIFO

	A	D	D	C	C	B	A	B	E	F	A	A	D	D	C	F	A	C	D	D	E	H	B	B	D	B	E	C
0	A						+		E																			
1						B		+					D	+				+	+				B	+		+		
2				C	+						A	+					+				H							
3	D	+								F					+						E						+	C
	B	B	E	D	B	B	D	G	H	D	B	C																
0				+			+		H																			
1	+	+			+	+		G				C																
2			E								B																	
3										D																		

total hit = 22 total memory = 40

hit ratio =  $22/40 = 55\%$

Q3

LRU

	A	D	D	C	C	B	A	B	E	F	A	A	D	D	/	C	F	A	C	D	D	E	H	B	B
0	A						+				+	+			/		+					H			
1						B		+	F				D	+	/					+	+				
2				C	+										/		+				E				
3		D	+						E						/	C			+					B	+
	D	B	E	C	B	B	E	D	B	B	D	G	H	D	B	C									
0				C								G													
1	+							+			+			+											
2			+				+						H			C									
3		+			+	+			+	+					+										

total hit = 25      total memory = 40  
hit ratio =  $25/40 = 62.5\%$