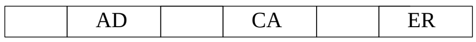
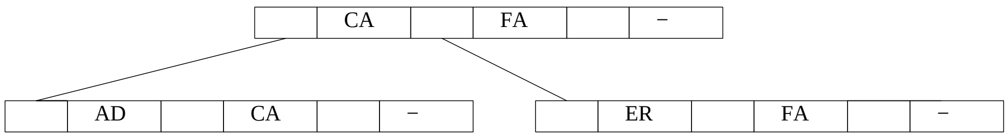
CSI2131, Winter 2002
Lab 11 Solution

Question 1 - A

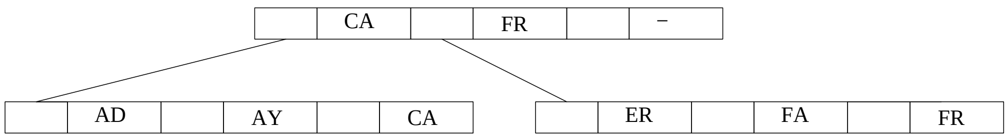
Insert AD, CA, ER:



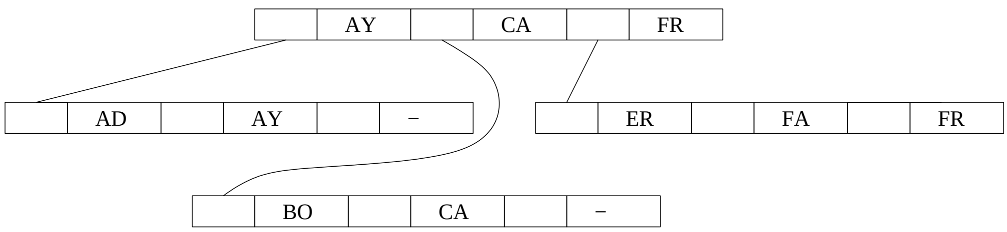
Insert FA:



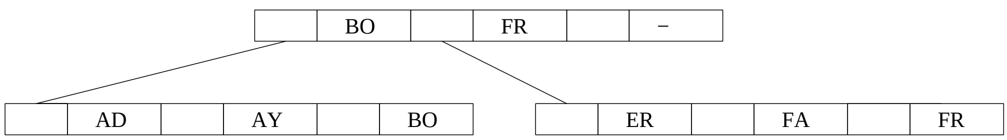
Insert FR, AY:



Insert BO:

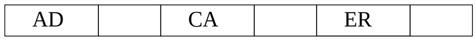


Delete CA (use merging):

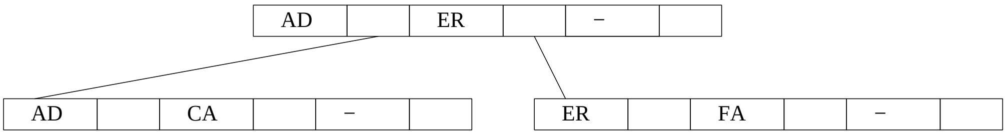


Question 1 - B

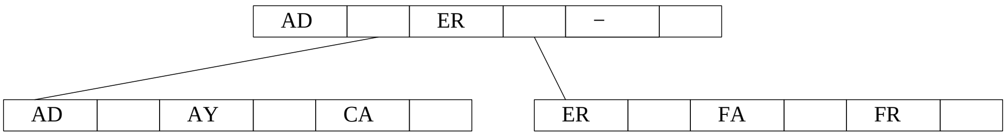
Insert AD, CA, ER:



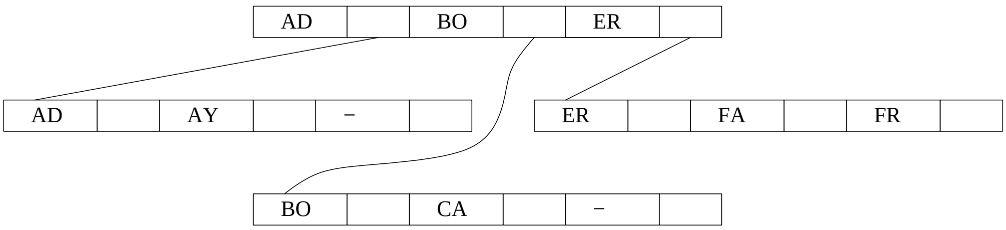
Insert FA:



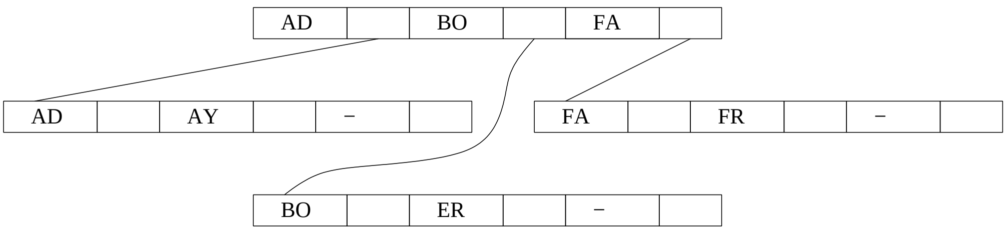
Insert FR, AY:



Insert BO:



Delete CA (use redistribution):



Question 2

D

Question 3

1) Merging With Predecessor

	E		L		-		-

	A		C		D		E

	I		J		L		-

2) Merging With Successor

	D		L		-		-

	A		C		D		-

	E		I		J		L

3) Redistribution With Predecessor

	C		E		L		-

	A		C		-		-

	D		E		-		-

	I		J		L		-

4) Redistribution With Successor

	D		I		L		-

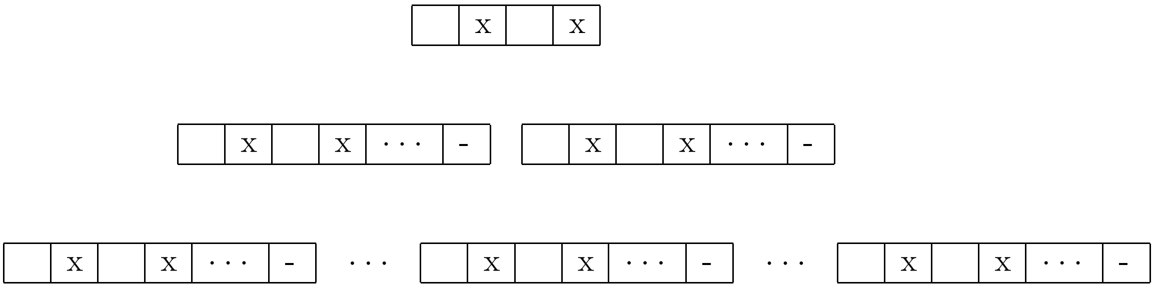
	A		C		D		-

	E		I		-		-

	J		L		-		-

Question 4

Minimum number of keys per level:



- level 1: 2
- level 2: 2x10 = 20 (2 nodes and 10 keys per node)
- level 3: 20·10 = 200 (20 nodes and 10 keys per node)