

%%%

```
INSERT(CURRENT_RRN, KEY, PROMO_R_CHILD, PROMO_KEY)
INSERT(7, $, PROMO_R_CHILD, PROMO_KEY)
```

PAGE 7

1	N			2	6	NIL	NIL
---	---	--	--	---	---	-----	-----

POS = 0

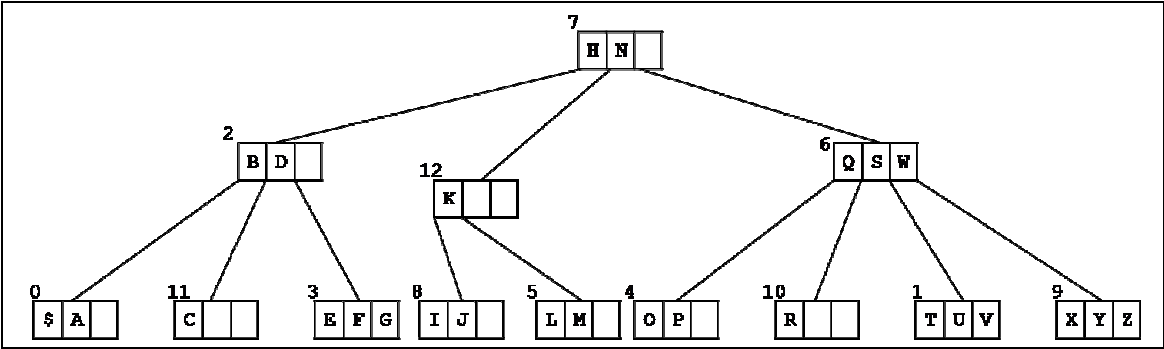
```
RETURN_VALUE = INSERT(PAGE.CHILD[POS], KEY, P_B_RRN, P_B_KEY)
RETURN_VALUE = INSERT(2, $, P_B_RRN, P_B_KEY)
```

.....

```
RETURN_VALUE = INSERT(PAGE.CHILD[POS], KEY, P_B_RRN, P_B_KEY)
PROMOTION = INSERT(2, $, 12, H)
```

PAGE 7

2	H	N		2	12	6	NIL
---	---	---	--	---	----	---	-----



RETURN NO PROMOTION

%%%

```
INSERT(CURRENT_RRN, KEY, PROMO_R_CHILD, PROMO_KEY)
INSERT(2, $, PROMO_R_CHILD, PROMO_KEY)
```

PAGE 2

3	D	H	K	0	3	8	5
---	---	---	---	---	---	---	---

POS = 0

RETURN_VALUE = INSERT(PAGE.CHILD[POS], KEY, P_B_RRN, P_B_KEY)

RETURN_VALUE = INSERT(0, \$, P_B_RRN, P_B_KEY)

.....

RETURN_VALUE = INSERT(PAGE.CHILD[POS], KEY, P_B_RRN, P_B_KEY)

PROMOTION = INSERT(0, \$, 11, B)

SPLIT(P_B_KEY, P_B_RRN, PAGE, PROMO_KEY, PROMO_R_CHILD, NEWPAGE)

SPLIT(B, 11, 2, PROMO_KEY, PROMO_R_CHILD, NEWPAGE)

.....
SPLIT(I_KEY, I_RRN, PAGE, PROMO_KEY, PROMO_R_CHILD, NEWPAGE)

SPLIT(B, 11, 2, PROMO_KEY, PROMO_R_CHILD, NEWPAGE)

PAGE 2

3	D	H	K	0	3	8	5
---	---	---	---	---	---	---	---

WORKING PAGE

3	D	H	K		0	3	8	5	
---	---	---	---	--	---	---	---	---	--

WORKING PAGE

4	B	D	H	K	0	11	3	8	5
---	---	---	---	---	---	----	---	---	---

NEWPAGE 12

1	K			8	5	NIL	NIL
---	---	--	--	---	---	-----	-----

PAGE 2

2	B	D		0	11	3	NIL
---	---	---	--	---	----	---	-----

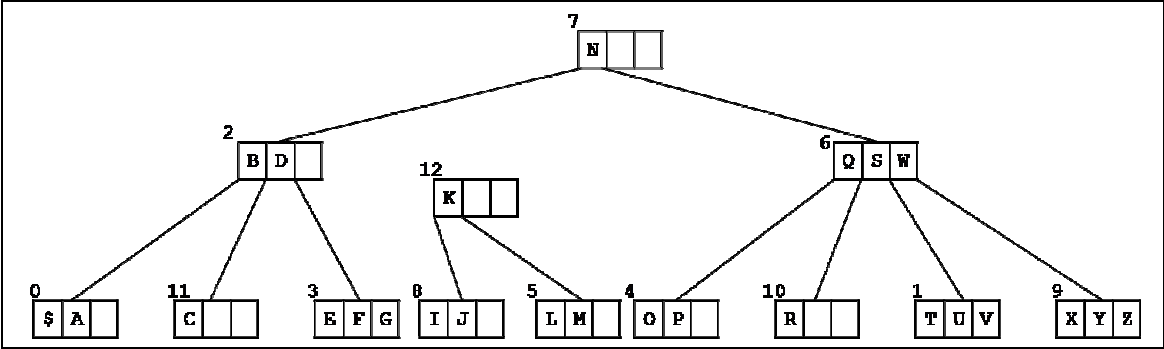
PROMO_KEY = H

PROMO_R_CHILD = 12

.....

SPLIT(P_B_KEY, P_B_RRN, PAGE, PROMO_KEY, PROMO_R_CHILD, NEWPAGE)

SPLIT(B, 11, 2, H, 12, 12)



RETURN PROMOTION

%%%

INSERT(CURRENT_RRN, KEY, PROMO_R_CHILD, PROMO_KEY)
INSERT(0, \$, PROMO_R_CHILD, PROMO_KEY)

PAGE 0

3	A	B	C	NIL	NIL	NIL	NIL
---	---	---	---	-----	-----	-----	-----

POS = 0

RETURN_VALUE = INSERT(PAGE.CHILD[POS], KEY, P_B_RRN, P_B_KEY)
RETURN_VALUE = INSERT(NIL, \$, P_B_RRN, P_B_KEY)

.....

RETURN_VALUE = INSERT(NIL, \$, P_B_RRN, P_B_KEY)
PROMOTION = INSERT(NIL, \$, NIL, \$)

SPLIT(P_B_KEY, P_B_RRN, PAGE, PROMO_KEY, PROMO_R_CHILD, NEWPAGE)
SPLIT(\$, NIL, 0, PROMO_KEY, PROMO_R_CHILD, NEWPAGE)

.....
SPLIT(I_KEY, I_RRN, PAGE, PROMO_KEY, PROMO_R_CHILD, NEWPAGE)
SPLIT(\$, NIL, 0, PROMO_KEY, PROMO_R_CHILD, NEWPAGE)

PAGE 0

3	A	B	C	NIL	NIL	NIL	NIL
---	---	---	---	-----	-----	-----	-----

WORKING PAGE

3	A	B	C		NIL	NIL	NIL	NIL
---	---	---	---	--	-----	-----	-----	-----

WORKING PAGE

4	\$	A	B	C	NIL	NIL	NIL	NIL
---	----	---	---	---	-----	-----	-----	-----

NEWPAGE 11

1	C				NIL	NIL	NIL	NIL
---	---	--	--	--	-----	-----	-----	-----

PAGE 0

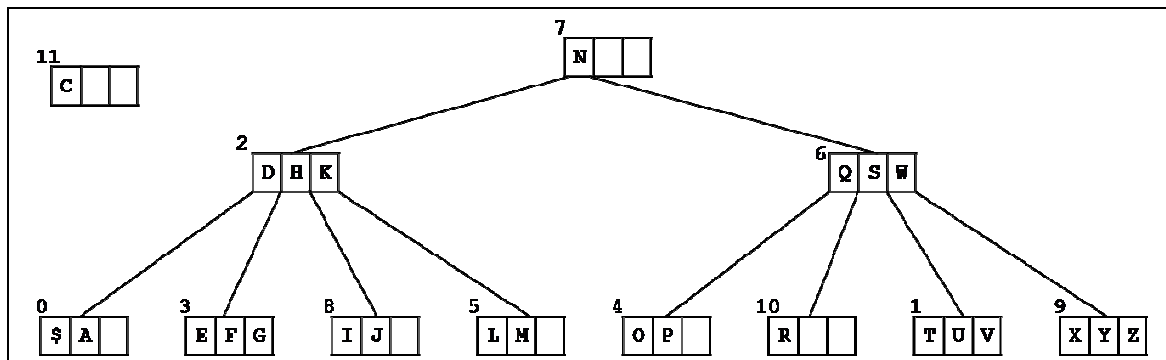
2	\$	A		NIL	NIL	NIL	NIL
---	----	---	--	-----	-----	-----	-----

PROMO_KEY = B

PROMO_R_CHILD = 11

SPLIT(P_B_KEY, P_B_RRN, PAGE, PROMO_KEY, PROMO_R_CHILD, NEWPAGE)

SPLIT(\$, NIL, 0, B, 11, 11)



RETURN PROMOTION

%%%

INSERT(CURRENT_RRN, KEY, PROMO_R_CHILD, PROMO_KEY)

INSERT(NIL, \$, PROMO_R_CHILD, PROMO_KEY)

CONDIÇÃO VERDADEIRA!

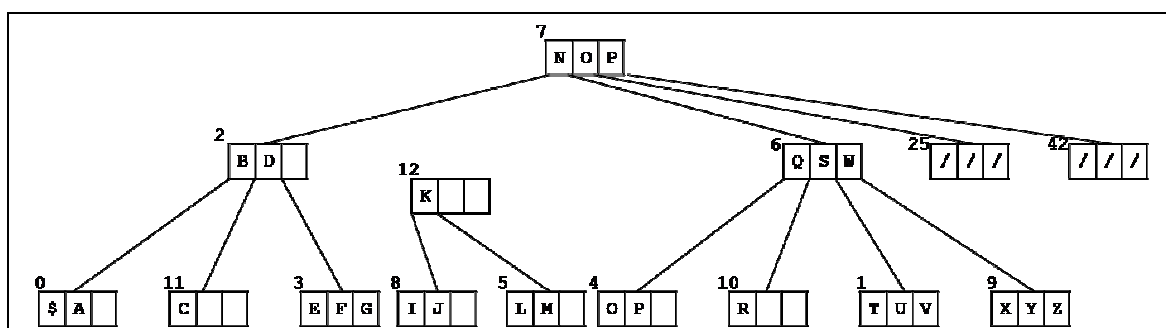
PROMO_KEY = \$

PROMO_R_CHILD = NIL

RETURN PROMOTION

%%%

SIMULAÇÃO RAIZ CHEIA



PAGE 7

3	N	O	P	2	6	25	42
---	---	---	---	---	---	----	----

SPLIT(P_B_KEY, P_B_RRN, PAGE, PROMO_KEY, PROMO_R_CHILD, NEWPAGE)
SPLIT(H, 12, 7, PROMO_KEY, PROMO_R_CHILD, NEWPAGE)

SPLIT(I_KEY, I_RRN, PAGE, PROMO_KEY, PROMO_R_CHILD, NEWPAGE)
SPLIT(H, 12, 7, PROMO_KEY, PROMO_R_CHILD, NEWPAGE)

PAGE 7

3	N	O	P	2	6	25	42
---	---	---	---	---	---	----	----

WORKING PAGE

3	N	O	P		2	6	25	42	
---	---	---	---	--	---	---	----	----	--

WORKING PAGE

4	H	N	O	P	2	12	6	25	42
---	---	---	---	---	---	----	---	----	----

NEWPAGE 13

2	O	P		6	25	42	NIL
---	---	---	--	---	----	----	-----

PAGE 7

1	H			2	12	NIL	NIL
---	---	--	--	---	----	-----	-----

PROMO_KEY = N
PROMO_R_CHILD = 13
PROMOTION

BLOCO PRINCIPAL (WHILE)

NEWPAGE ROOT 14

1	N			7	13	NIL	NIL
---	---	--	--	---	----	-----	-----

ROOT = 14

