

TPM /

1.

가 가 S .
가 가 [2].

()

가 .
가 .
F 가 .
() . < 1 >
가 . 가

< 1 > 가

| | | |
|---|---------------------------|-------------|
| 가 | | |
| | 가 Plant가 가 Plant가 가 | 5 3 0 |
| | | 5 3 0 |
| | 가 | 5 3 0 |
| | 가 , 가 , 2 | 5 3 0 |
| | 20 10 20 10 | 5 3 0 |

< 2 > 4 .

(S)

(A)

PM (B)

BM (C)

TBM, CBM, BM

S CBM ()

A CBM (+)

B (TBM)

C (BM)

CBM

2가

가

< 2>

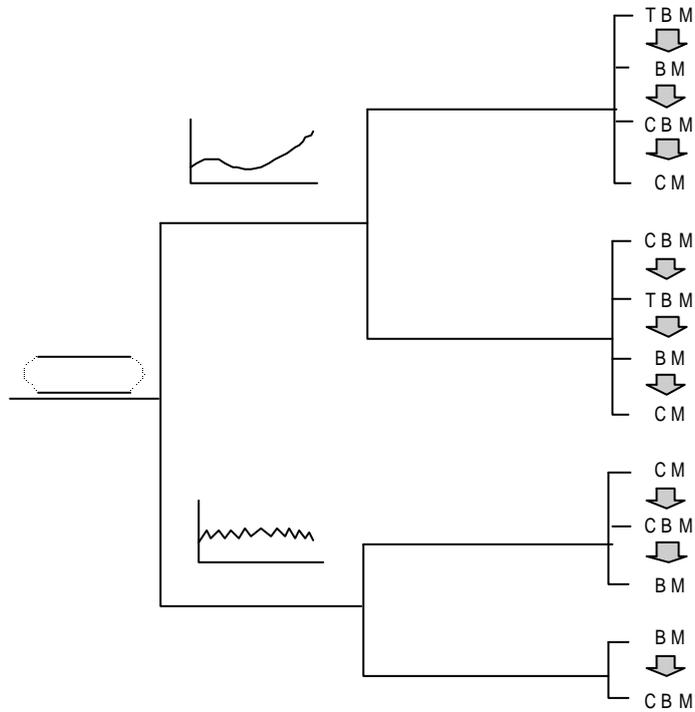
| | | | | |
|---|------|------|------------|------------|
| | (S) | (A) | PM (B) | BM (C) |
| 가 | | ~ | ~ | ~ |

< 1>

2가

가

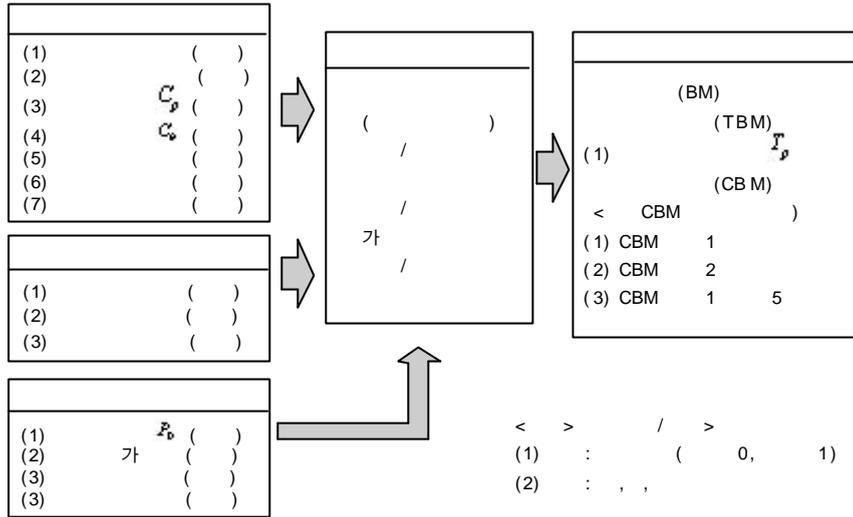
< 1>



< 1>

< 2>

가 가 가 .
 「 」 「0」, 「 」 「1」
 . , 「 」 「 」 「 」



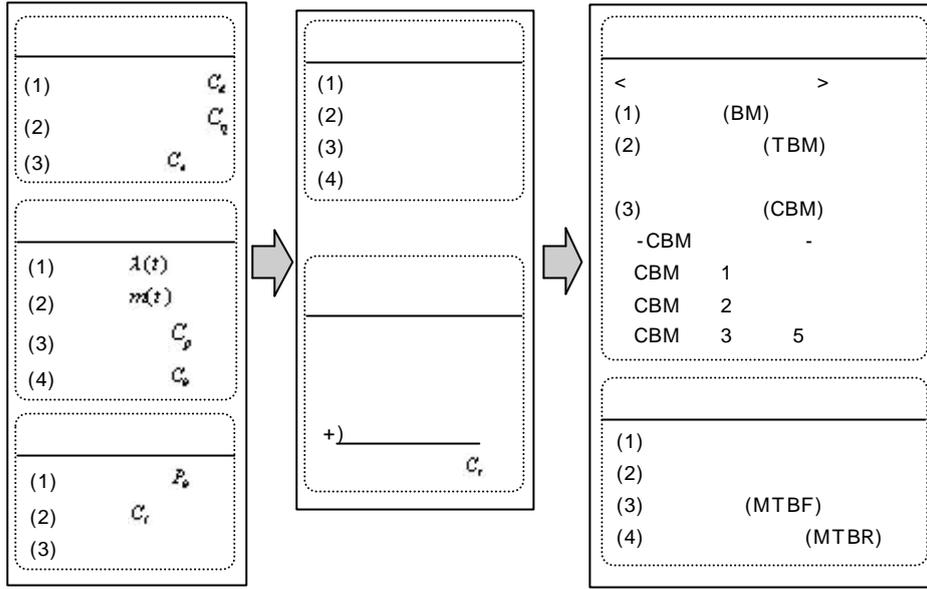
< 2>

가

2.

가

. < 3>



< 3 >

3

가 () 가() () 가

3가

C_d
 C_q
 C_e

$C_p,$

C_b 4가

$I, m(t),$
 $m(t)$

MTTR(Mean Time To Repair)

$P_0, C_i,$

3가 ,

10

C_t

$$C_t = C_d + C_q + C_p + C_b + C_i \text{ -----(1)}$$

, C_t : (/)

C_d : (/)
 C_q : (/)
 C_p : (/)
 C_b : (/)
 C_i : (/)

(1) C_d, C_q, C_p, C_b, C_i 10 , < 3>

BM, TBM, CBM

C_t 가 C_q 가 C_o , < 3>

< 3> C_t

| | | | | |
|-------|------------------------------|-------------------------------|----------------------|------------------------------------|
| | | | | |
| (BM) | $\frac{1}{MTBF_s} \times CF$ | | | $+\frac{MTR_s}{MTBF_s} \times C_o$ |
| (TBM) | $\frac{1}{MTBF_r} \times CF$ | $+\frac{1}{MTBR_r} \times CR$ | | $+\frac{MTR_r}{MTBF_r} \times C_o$ |
| (CBM) | $\frac{1}{MTBF_c} \times CF$ | $+\frac{1}{MTBR_c} \times CR$ | $+\frac{C}{T} + C_a$ | $+\frac{MTR_c}{MTBF_c} \times C_o$ |

() T_r : () C_r : (/) C_s : (/)
 CF : CR : C_o : ()
 $MTBF_s$: BM () $MTBF_r$: TBM ()
 $MTBF_c$: CBM () MTR_s : BM ()
 MTR_r : TBM () MTR_c : CBM ()

(BM) 가 BM 2
 1
 (BM), (TBM), (CBM)
 2 CBM 가 CBM CBM(CBM
 3), CBM(CBM 2), CBM(CBM 1) . < 4>

