

```

1  systemState = EVENT_PROCESSING;
2  if (states[S11_ID].actives[0]==S111_ID
3  &&(currentEvent->stateId==S111_ID)){
4      Exit(states[S11_ID].actives[0]);
5      states[S11_ID].actives[0]=STATE_MAX;
6      Exit(states[S1_ID].actives[0]);
7      states[S1_ID].actives[0]=STATE_MAX;
8      if (guard1) {
9          Exit(S1_ID);
10         activeStateID = S3_ID;
11         Entry(S3_ID);
12     } else {
13         Exit(S1_ID);
14         activeStateID = S2_ID;
15         Entry(S2_ID);
16         unsigned int loc_ActiveId;
17         if(states[S2_ID].previousStates[0]
18             !=STATE_MAX) {
19             loc_ActiveId=states[S2_ID]
20                 .previousStates[0];
21         } else {
22             loc_ActiveId = S21_ID;
23         }
24         states[S2_ID].actives[0]=
25             loc_ActiveId;
26         Entry(loc_ActiveId);
27     }
28     systemState = EVENT_CONSUMED;
29 }

```

a

```

1  systemState = EVENT_PROCESSING;
2  if (states[S11_ID].actives[0]==S111_ID
3  &&(currentEvent->stateId==S111_ID)){
4      Exit(states[S11_ID].actives[0]);
5      states[S11_ID].actives[0]=STATE_MAX;
6      Exit(states[S1_ID].actives[0]);
7      states[S1_ID].actives[0]=STATE_MAX;
8      Exit(S1_ID);
9      if (guard1) {
10         activeStateID = S3_ID;
11         Entry(S3_ID);
12     } else {
13         activeStateID = S2_ID;
14         Entry(S2_ID);
15         unsigned int loc_ActiveId;
16         if(states[S2_ID].previousStates[0]
17             !=STATE_MAX) {
18             loc_ActiveId =
19                 states[S2_ID].previousStates[0];
20         } else {
21             loc_ActiveId = S21_ID;
22         }
23         states[S2_ID].actives[0]=
24             loc_ActiveId;
25         Entry(loc_ActiveId);
26     }
27     systemState = EVENT_CONSUMED;
28 }

```

b

```

1  systemState = EVENT_PROCESSING;
2  if (states[S11_ID].actives[0]==S111_ID
3  && (currentEvent->stateId==S111_ID)){
4      Exit(states[S11_ID].actives[0]);
5      states[S11_ID].actives[0]=STATE_MAX;
6      Exit(states[S1_ID].actives[0]);
7      states[S1_ID].actives[0]=STATE_MAX;
8      if (guard1) {
9          Exit(S1_ID);
10         activeStateID = STATE_MAX;
11     } else {
12         Exit(S1_ID);
13         activeStateID = S2_ID;
14         Entry(S2_ID);
15         unsigned int S2_Region1_dh1;
16         if (states[S2_ID].previousStates[0]
17             != STATE_MAX) {
18             S2_Region1_dh1 =
19                 states[S2_ID].previousStates[0];
20             Entry(S2_Region1_dh1);
21             if (S21_ID==S2_Region1_dh1) {
22                 unsigned int S21_Region1_dh1 =
23                     states[S21_ID].previousStates[0];
24                 Entry(S21_Region1_dh1);
25             }
26         } else {
27             states[S2_ID].actives[0]=S21_ID;
28             Entry(S21_ID);
29             states[S21_ID].actives[0]=S211_ID;
30             Entry(S211_ID);
31         }
32     }
33     systemState = EVENT_CONSUMED;
34 }

```

c

```

1  systemState = EVENT_PROCESSING;
2  if (states[S11_ID].actives[0]==S111_ID
3  &&(currentEvent->stateId==S111_ID)){
4      Exit(states[S11_ID].actives[0]);
5      states[S11_ID].actives[0] = STATE_MAX;
6      Exit(states[S1_ID].actives[0]);
7      states[S1_ID].actives[0] = STATE_MAX;
8      Exit(S1_ID);
9      if (guard1) {
10         activeStateID = S3_ID;
11         Entry(S3_ID);
12     } else {
13         activeStateID = S2_ID;
14         Entry(S2_ID);
15         unsigned int loc_ActiveId;
16         if (states[S2_ID].previousStates[0]
17             !=STATE_MAX) {
18             loc_ActiveId =
19                 states[S2_ID].previousStates[0];
20         } else {
21             loc_ActiveId = S21_ID;
22         }
23         states[S2_ID].actives[0]=loc_ActiveId;
24         Entry(loc_ActiveId);
25     }
26     systemState = EVENT_CONSUMED;
27 }

```

d