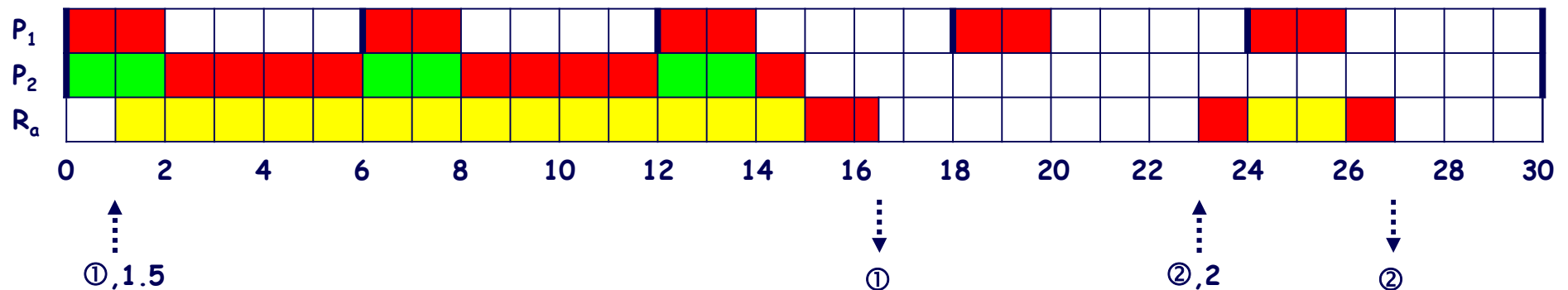


SERVIZIO IN BACKGROUND ...

A_1	C [ms]	T [ms]
P_1	2	6
P_2	9	30

strategia di schedulazione: RMPO

	a [ms]	s [ms]
R_{a1}	1	1.5
R_{a2}	23	2



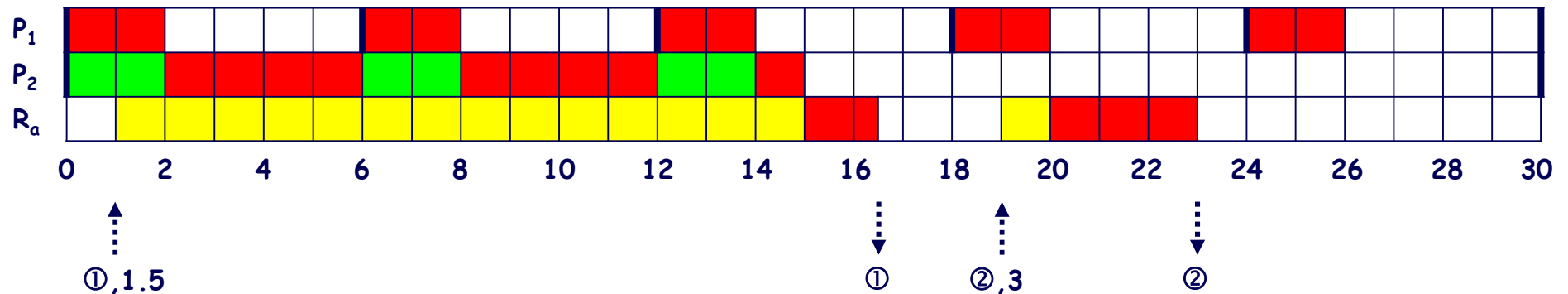
P_i	Idle	Ready	Running
R_a	None	Pending	Served

... SERVIZIO IN BACKGROUND

A_1	C [ms]	T [ms]
P_1	2	6
P_2	9	30

strategia di schedulazione: RMPO

	a [ms]	s [ms]
R_{a1}	1	1.5
R_{a2}	19	3



P_i	Idle	Ready	Running
R_a	None	Pending	Served

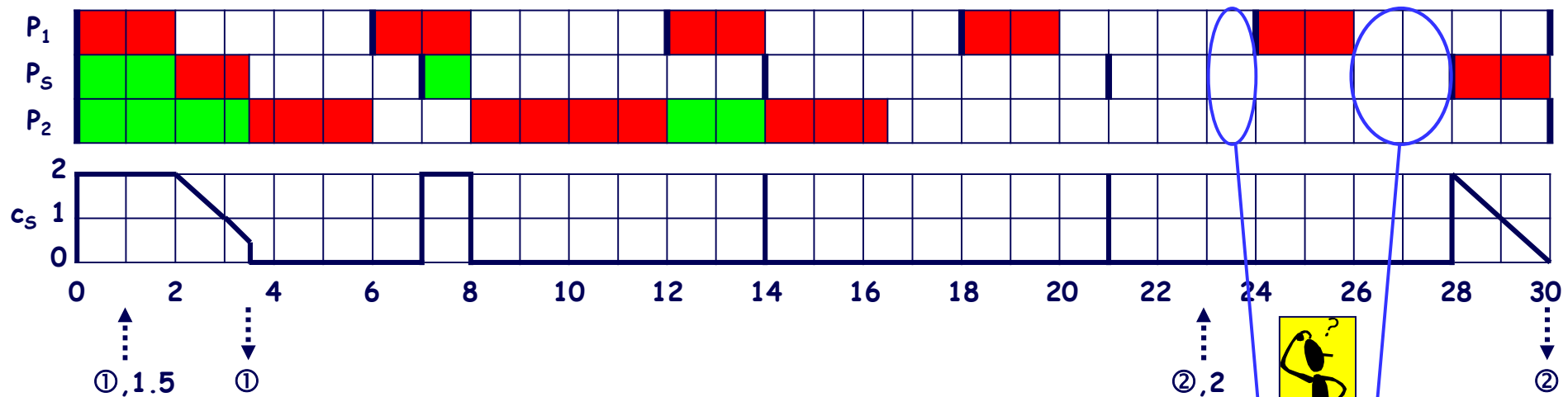
SERVIZIO TRAMITE POLLING SERVER ...

A_1	C [ms]	T [ms]
P_1	2	6
P_2	9	30

strategia di schedulazione: RMPO

$P_S : T_S = 7 \text{ ms}, C_S = 2 \text{ ms}$

	a [ms]	s [ms]
R_{a1}	1	1.5
R_{a2}	23	2



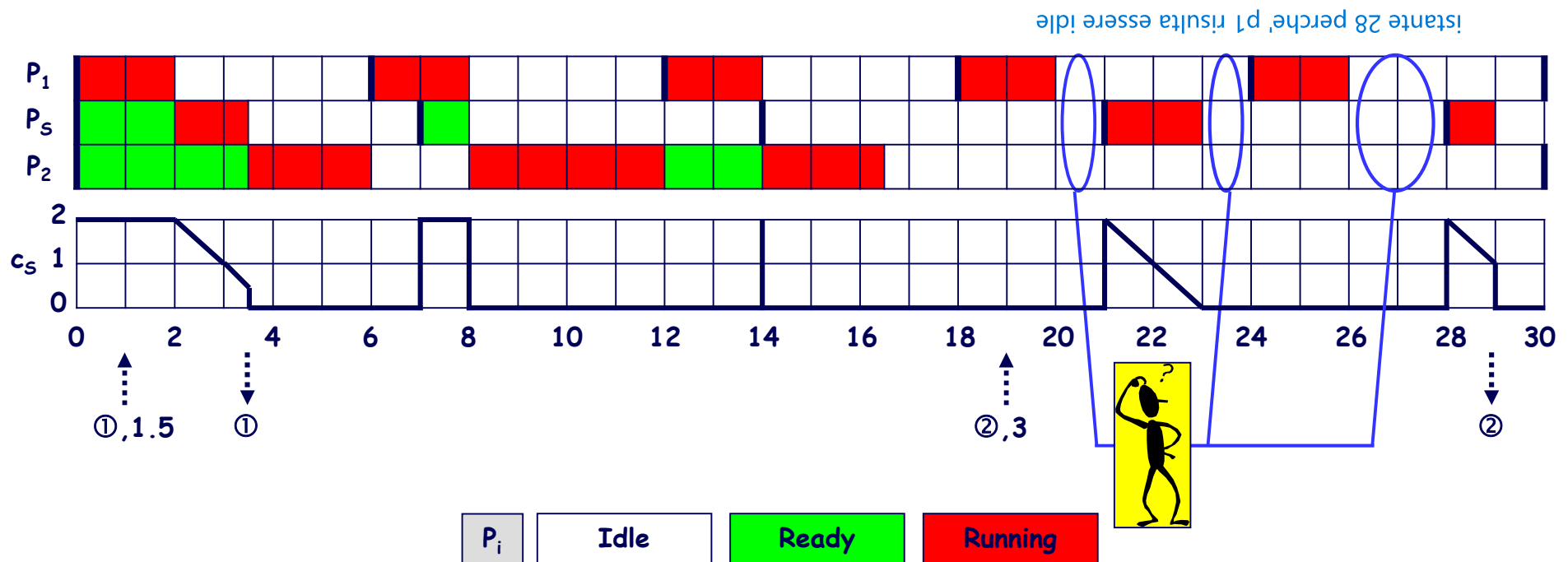
... SERVIZIO TRAMITE POLLING SERVER ...

A_1	C [ms]	T [ms]
P_1	2	6
P_2	9	30

strategia di schedulazione: RMPO

	a [ms]	s [ms]
R_{a1}	1	1.5
R_{a2}	19	3

$P_S : T_S = 7 \text{ ms}, C_S = 2 \text{ ms}$



... SERVIZIO TRAMITE POLLING SERVER ...

Server a massima priorità:

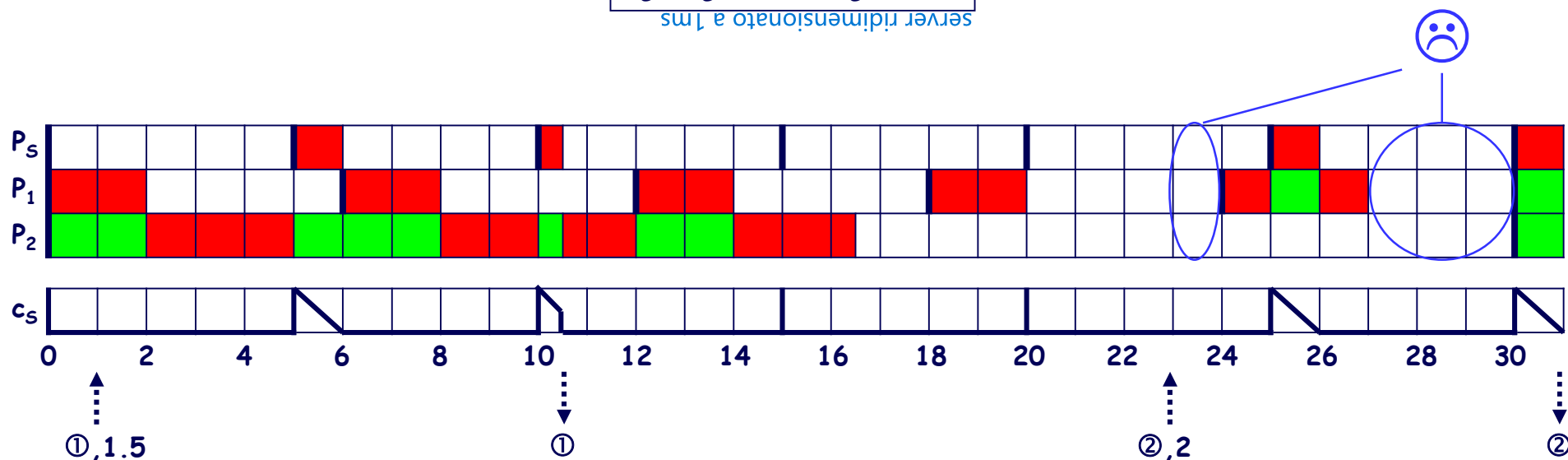
A_1	C [ms]	T [ms]
P_1	2	6
P_2	9	30

strategia di schedulazione: RMPO

	a [ms]	s [ms]
R_{a1}	1	1.5
R_{a2}	23	2

$P_S : T_S = 5 \text{ ms}, C_S = 1 \text{ ms}$

server ridimensionato a 1ms



... SERVIZIO TRAMITE POLLING SERVER ...

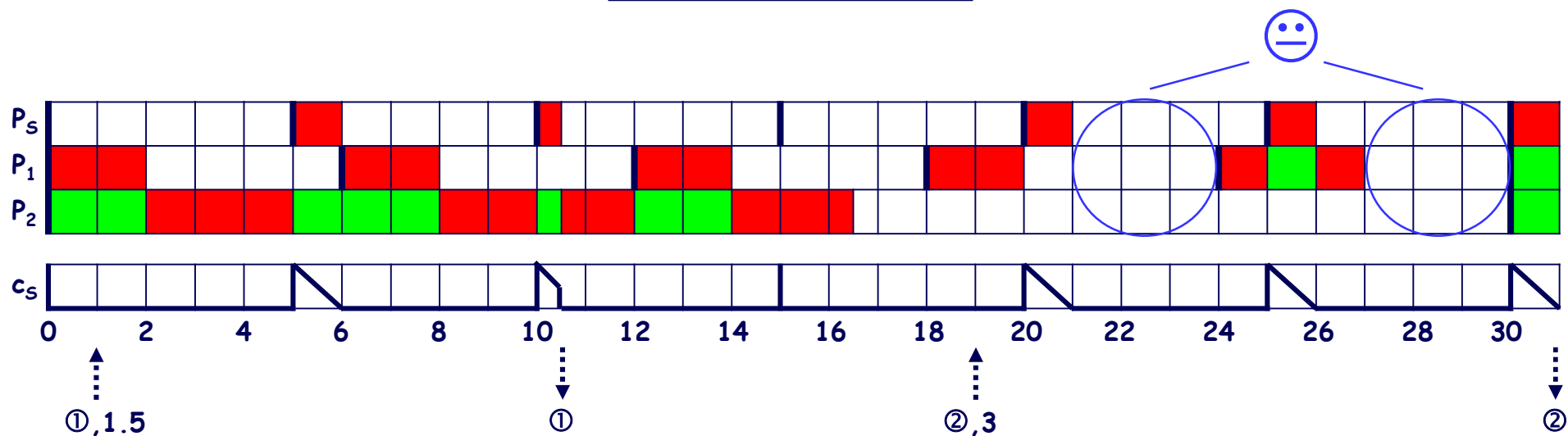
Server a massima priorità:

A_1	C [ms]	T [ms]
P_1	2	6
P_2	9	30

strategia di schedulazione: RMPO

	a [ms]	s [ms]
R_{a1}	1	1.5
R_{a2}	19	3

$P_S : T_S = 5 \text{ ms}, C_S = 1 \text{ ms}$

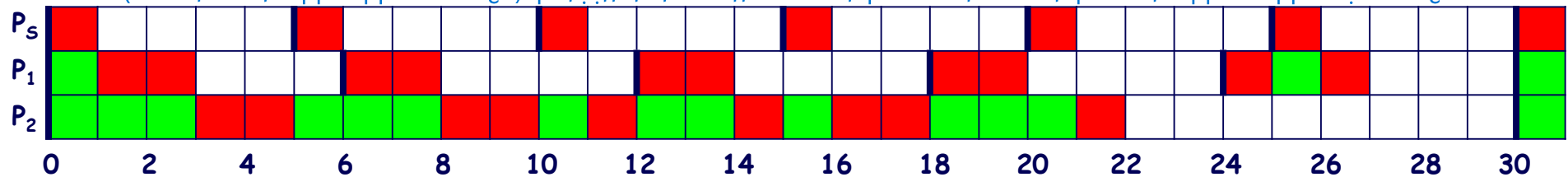


... SERVIZIO TRAMITE POLLING SERVER

A_i	C [ms]	T [ms]
P_1	2	6
P_2	9	30

Si verifichi se, indipendentemente dalla effettiva distribuzione temporale e dal tempo di servizio delle richieste aperiodiche, la loro gestione tramite Polling Server ($T_s = 5$ ms, $C_s = 1$ ms) compromette o meno la schedulabilità dei due processi P_1 e P_2 , identificando nell'uno o nell'altro caso il valore massimo che C_s può assumere, a parità di T_s , onde (continuare a) prevenire tale inaccettabile circostanza.

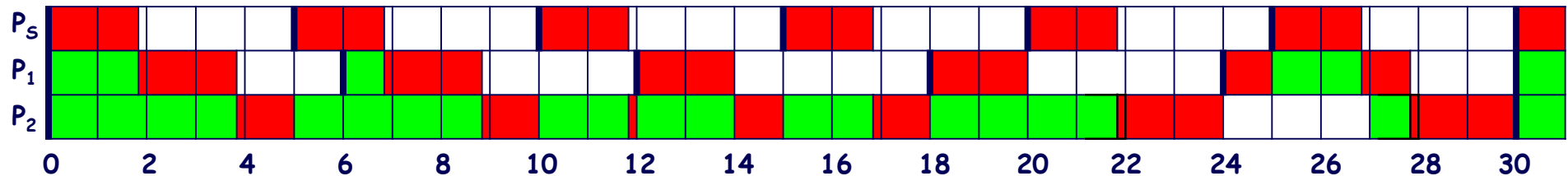
se il server avesse $c=2$, non ci sarebbero abbastanza slot per poter completare correttamente tutti i task (p2 non avrebbe abbastanza tempo)



sì	no
	x

$$C_s \leq 1.83 \text{ ms}$$

$$9/5+1$$



non è richiesto di rifare il diagramma temp.



$$U_s \leq (N+1) \left(2^{1/(N+1)} - 1 \right) - U_p \underset{N \rightarrow \infty}{=} \ln 2 - U_p$$

$$C_s \leq 0.73 \text{ ms}$$

$$U_s \leq \frac{2}{\left(1 + U_p/N \right)^N} - 1 \underset{N \rightarrow \infty}{=} \frac{2}{e^{U_p}} - 1$$

$$C_s \leq 0.78 \text{ ms}$$

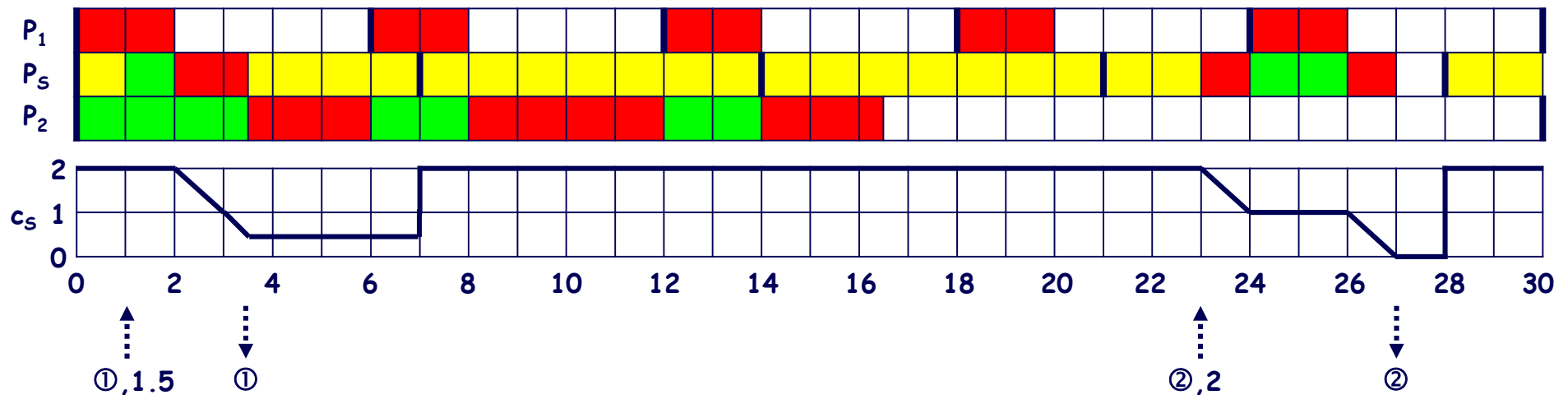
SERVIZIO TRAMITE DEFERRABLE SERVER ...

A_1	C [ms]	T [ms]
P_1	2	6
P_2	9	30

strategia di schedulazione: RMPO

$P_S : T_S = 7 \text{ ms}, C_S = 2 \text{ ms}$

	a [ms]	s [ms]
R_{a1}	1	1.5
R_{a2}	23	2



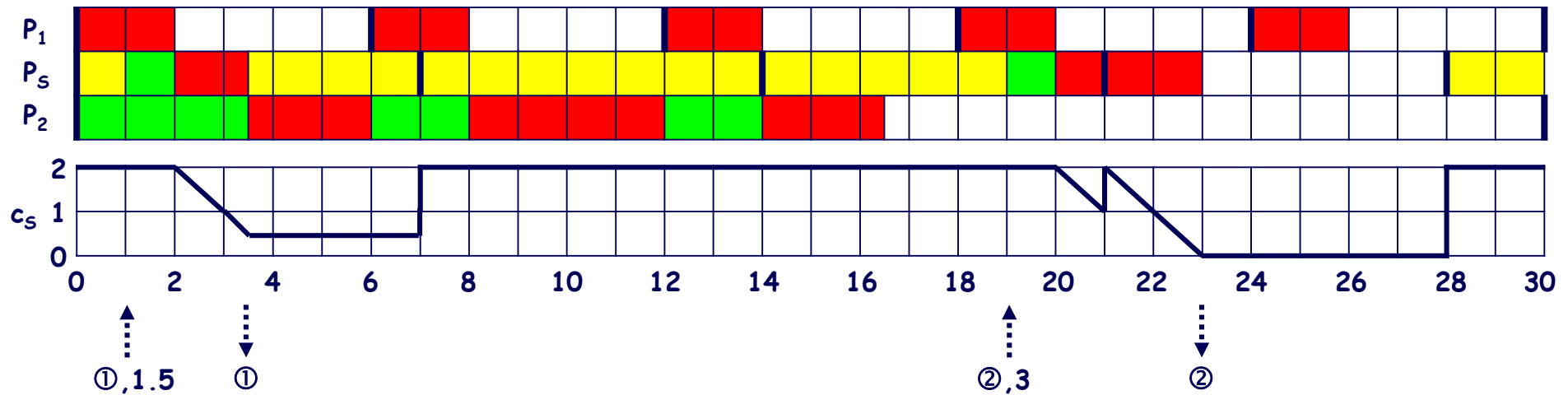
... SERVIZIO TRAMITE DEFERRABLE SERVER ...

A_1	C [ms]	T [ms]
P_1	2	6
P_2	9	30

strategia di schedulazione: RMPO

	a [ms]	s [ms]
R_{a1}	1	1.5
R_{a2}	19	3

$P_S : T_S = 7 \text{ ms}, C_S = 2 \text{ ms}$



... SERVIZIO TRAMITE DEFERRABLE SERVER ...

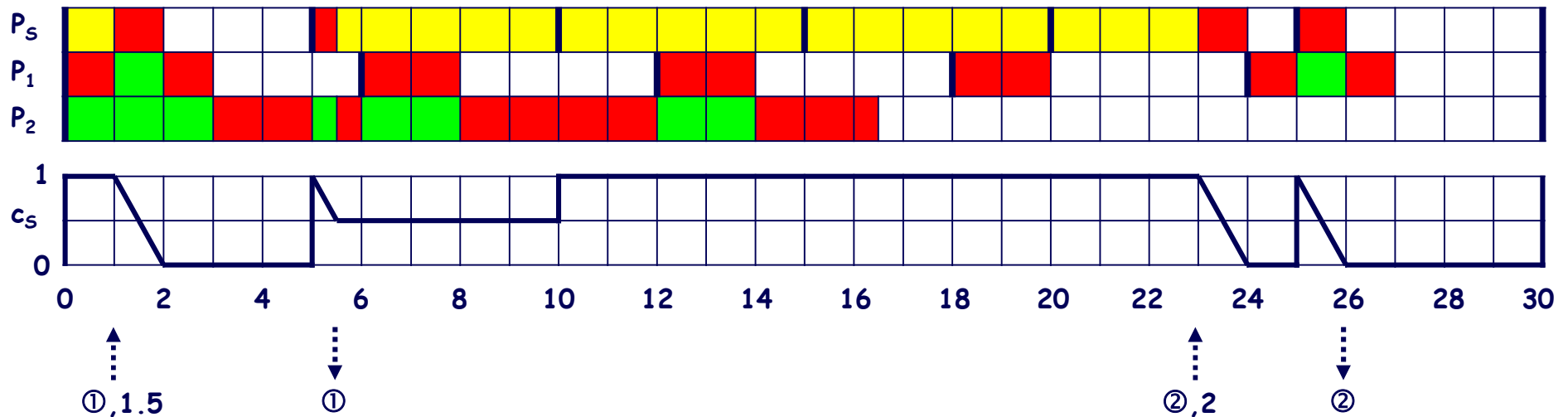
Server a massima priorità:

A_1	C [ms]	T [ms]
P_1	2	6
P_2	9	30

strategia di schedulazione: RMPO

	a [ms]	s [ms]
R_{a1}	1	1.5
R_{a2}	23	2

$P_S : T_S = 5 \text{ ms}, C_S = 1 \text{ ms}$



... SERVIZIO TRAMITE DEFERRABLE SERVER

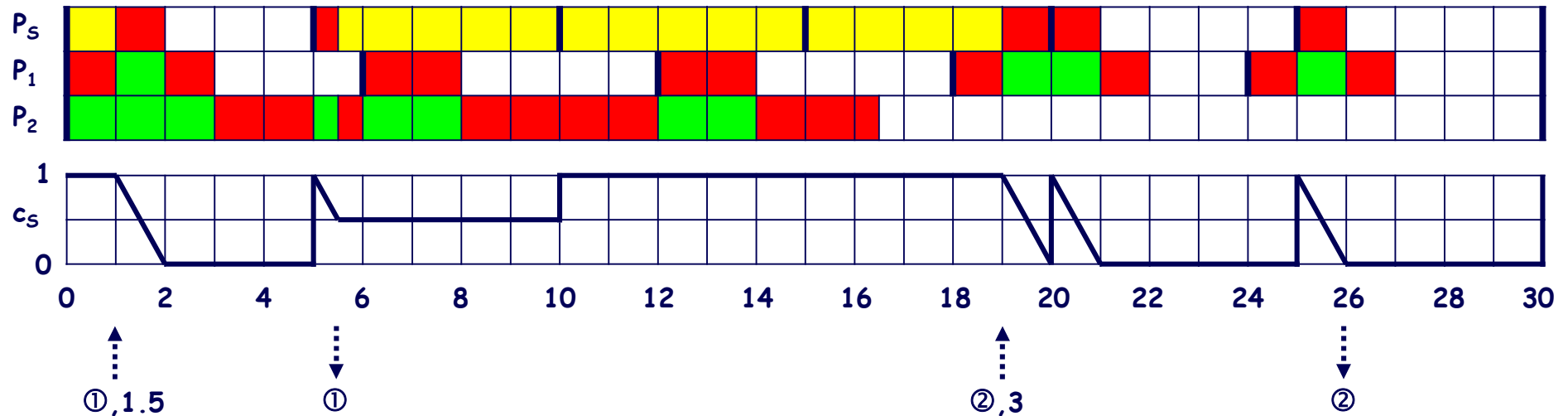
Server a massima priorità:

A_1	C [ms]	T [ms]
P_1	2	6
P_2	9	30

strategia di schedulazione: RMPO

	a [ms]	s [ms]
R_{a1}	1	1.5
R_{a2}	19	3

$P_S : T_S = 5 \text{ ms}, C_S = 1 \text{ ms}$

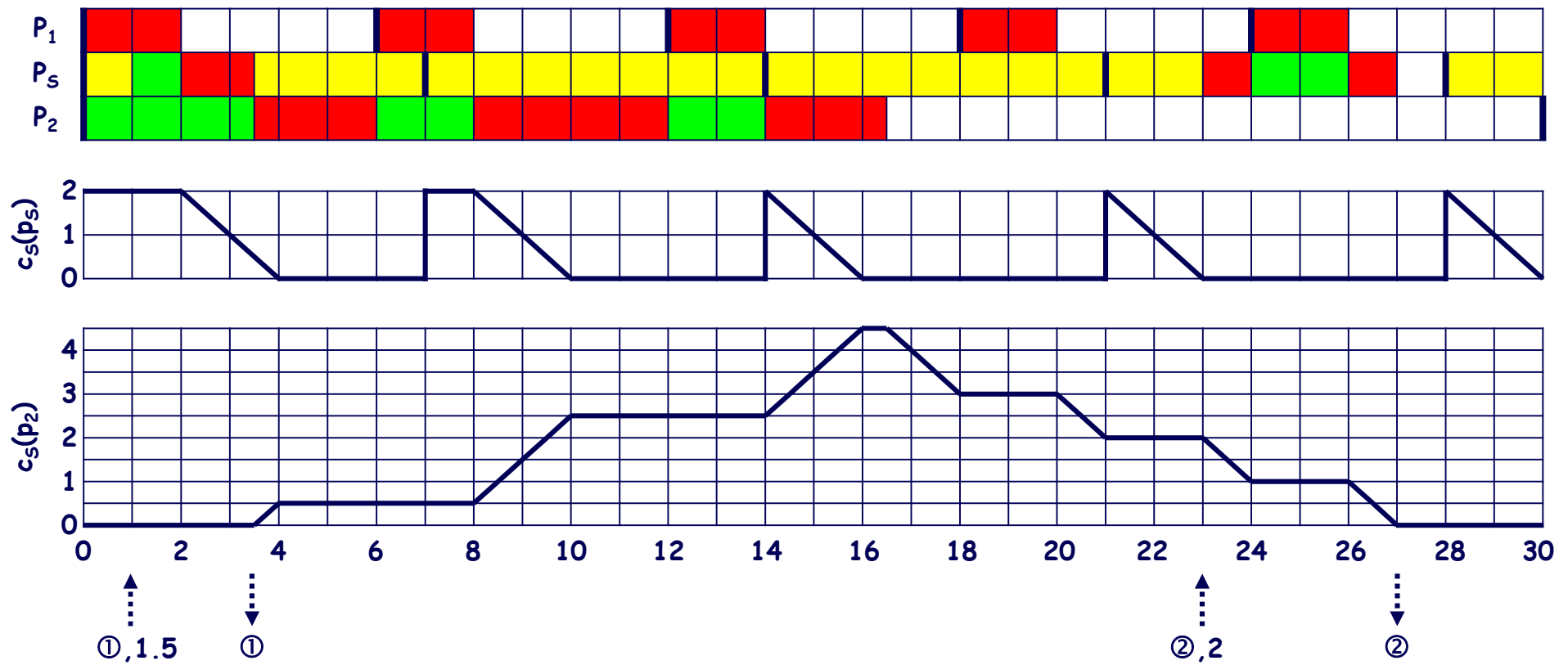


SERVIZIO TRAMITE PES ...

A_1	C [ms]	T [ms]
P_1	2	6
P_2	9	30

$P_S : T_S = 7 \text{ ms}, C_S = 2 \text{ ms}$

	a [ms]	s [ms]
R_{a1}	1	1.5
R_{a2}	23	2

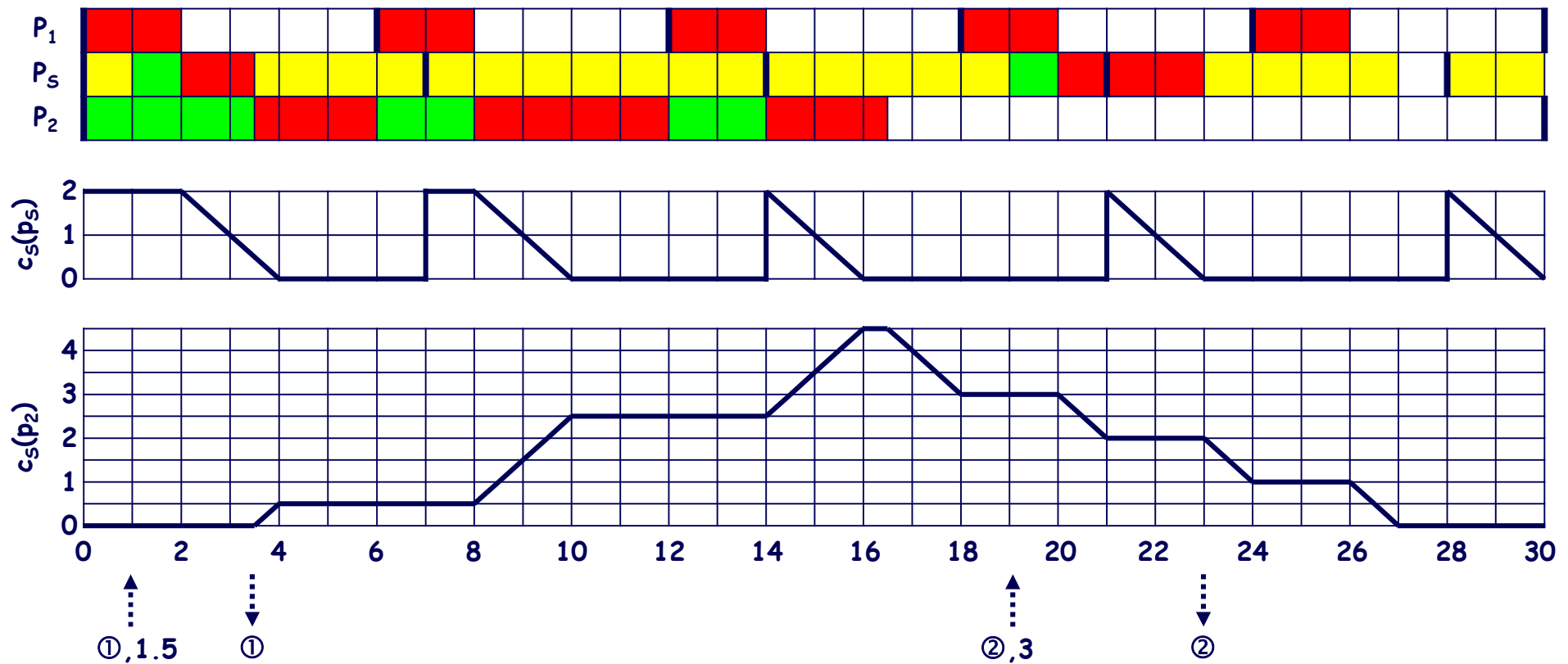


... SERVIZIO TRAMITE PES ...

A_1	C [ms]	T [ms]
P_1	2	6
P_2	9	30

$P_S : T_S = 7 \text{ ms}, C_S = 2 \text{ ms}$

	a [ms]	s [ms]
R_{a1}	1	1.5
R_{a2}	19	3



... SERVIZIO TRAMITE PES ...

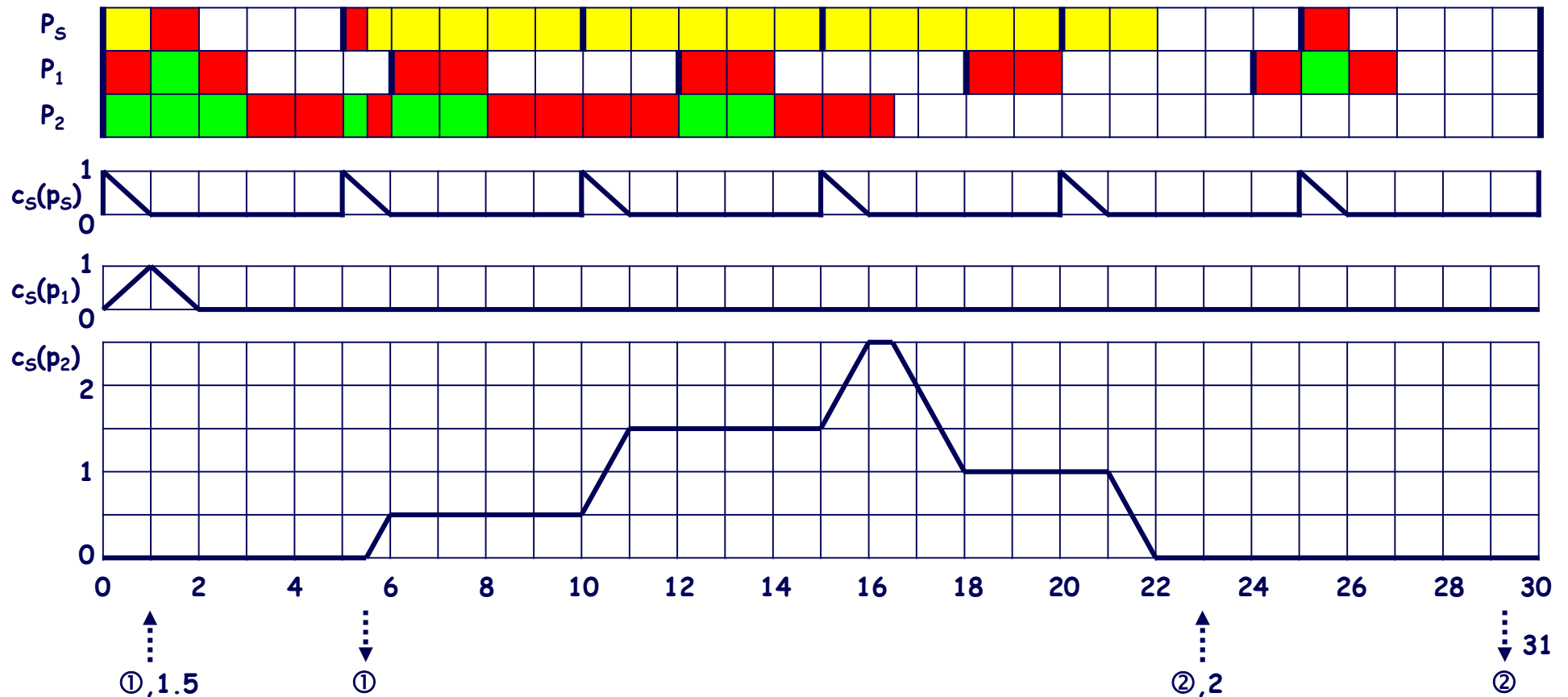
Server a massima priorità:

A_1	C [ms]	T [ms]
P_1	2	6
P_2	9	30

$P_S : T_S = 5 \text{ ms}, C_S = 1 \text{ ms}$

	a [ms]	s [ms]
R_{a1}	1	1.5
R_{a2}	23	2

Idle
Ready
Running
Waiting



... SERVIZIO TRAMITE PES

Server a massima priorità:

A_1	C [ms]	T [ms]
P_1	2	6
P_2	9	30

$P_S : T_S = 5 \text{ ms}, C_S = 1 \text{ ms}$

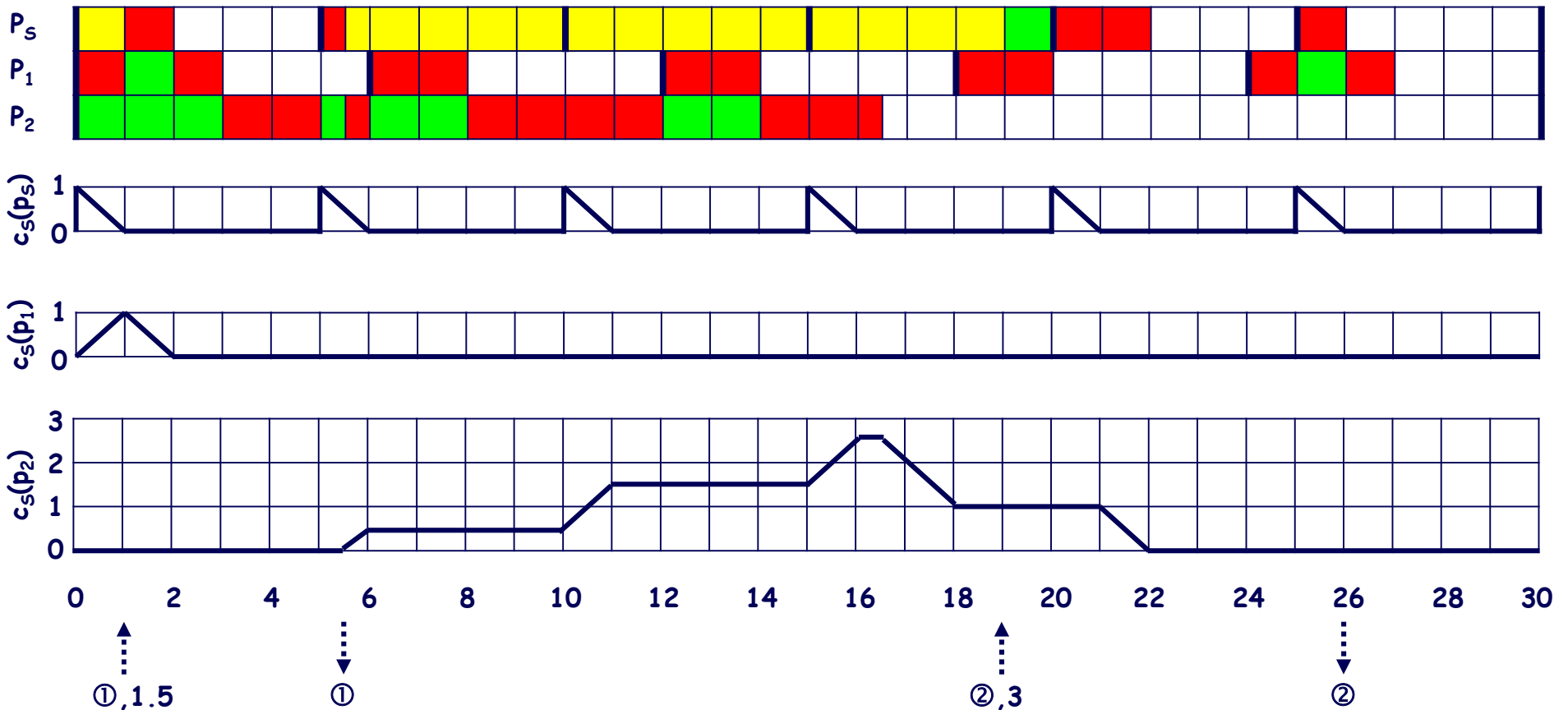
	a [ms]	s [ms]
R_{a1}	1	1.5
R_{a2}	19	3

Idle

Ready

Running

Waiting



Scheduling di processi SRT 15

SERVIZIO TRAMITE SS ...

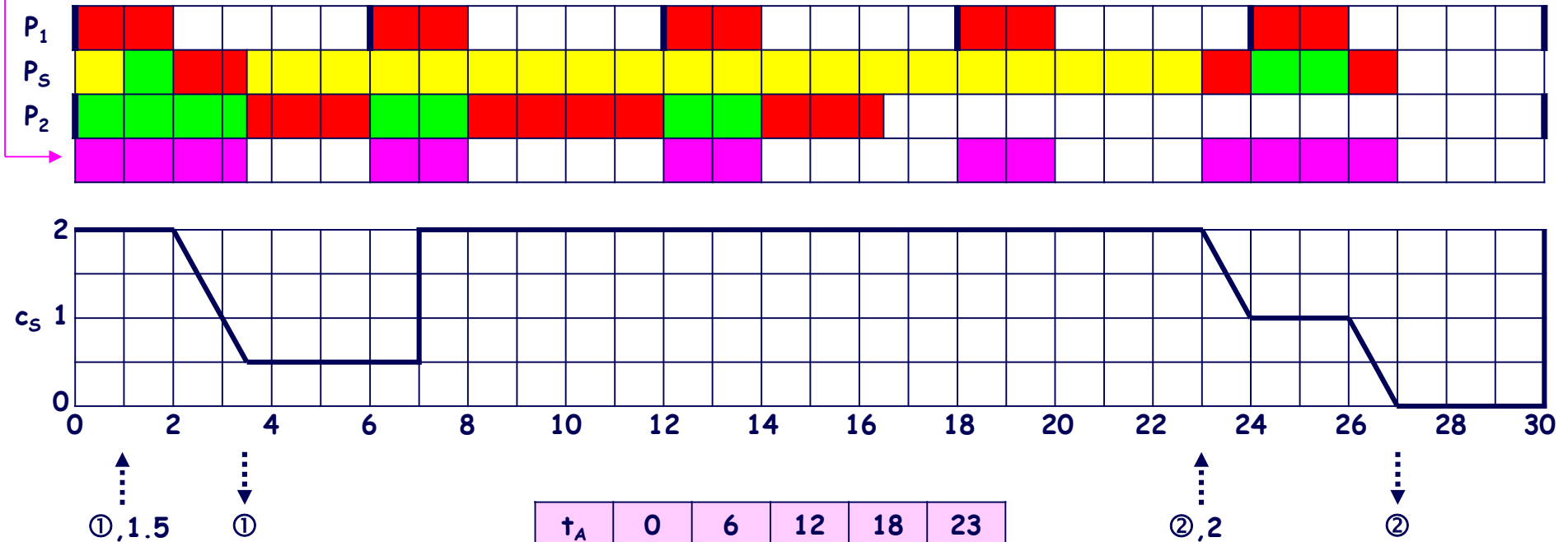
A_1	C [ms]	T [ms]
P_1	2	6
P_2	9	30

$P_S : T_S = 7 \text{ ms}, C_S = 2 \text{ ms}$

	a [ms]	s [ms]
R_{a1}	1	1.5
R_{a2}	23	2

Idle
Ready
Running
Waiting

P_S attivo
&
 $c_S > 0$



t_A	0	6	12	18	23
t_D	3.5	8	14	20	27
RA	1.5	0	0	0	2
RT	7	-	-	-	30

... SERVIZIO TRAMITE SS ...

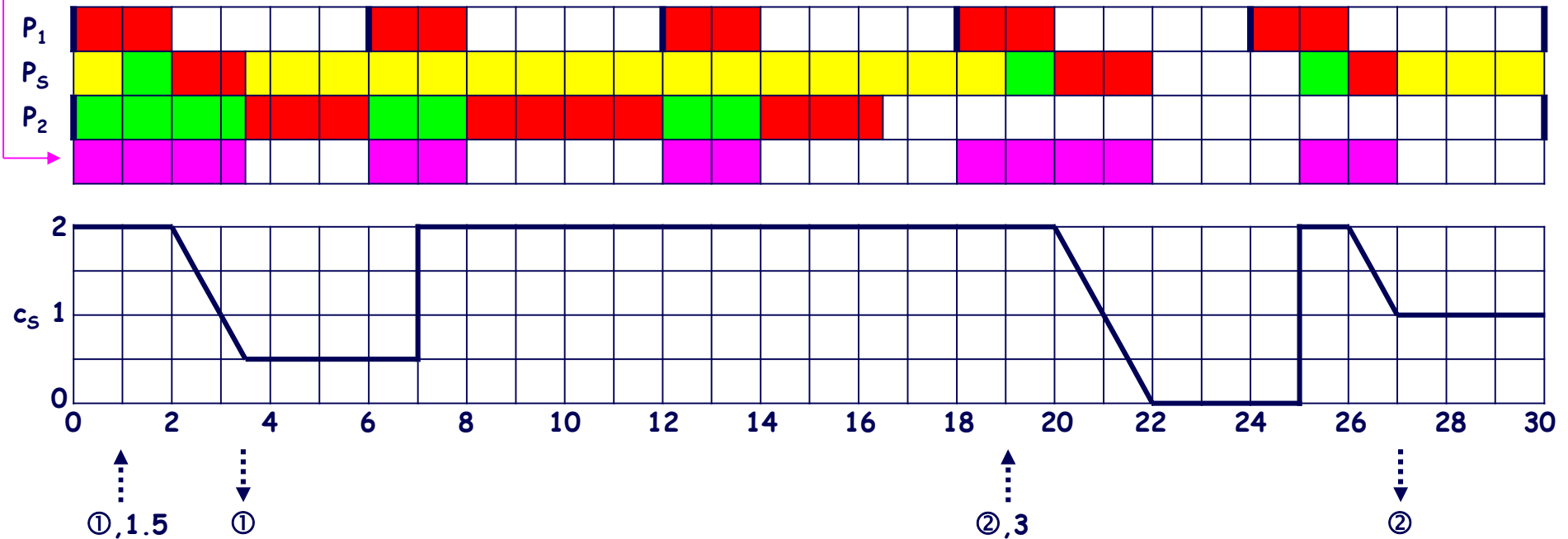
A_1	C [ms]	T [ms]
P_1	2	6
P_2	9	30

$P_S : T_S = 7 \text{ ms}, C_S = 2 \text{ ms}$

	a [ms]	s [ms]
R_{a1}	1	1.5
R_{a2}	19	3

Idle
Ready
Running
Waiting

P_S attivo
&
 $c_S > 0$



t_A	0	6	12	18	25
t_D	3.5	8	14	22	27
RA	1.5	0	0	2	1
RT	7	-	-	25	32

... SERVIZIO TRAMITE SS ...

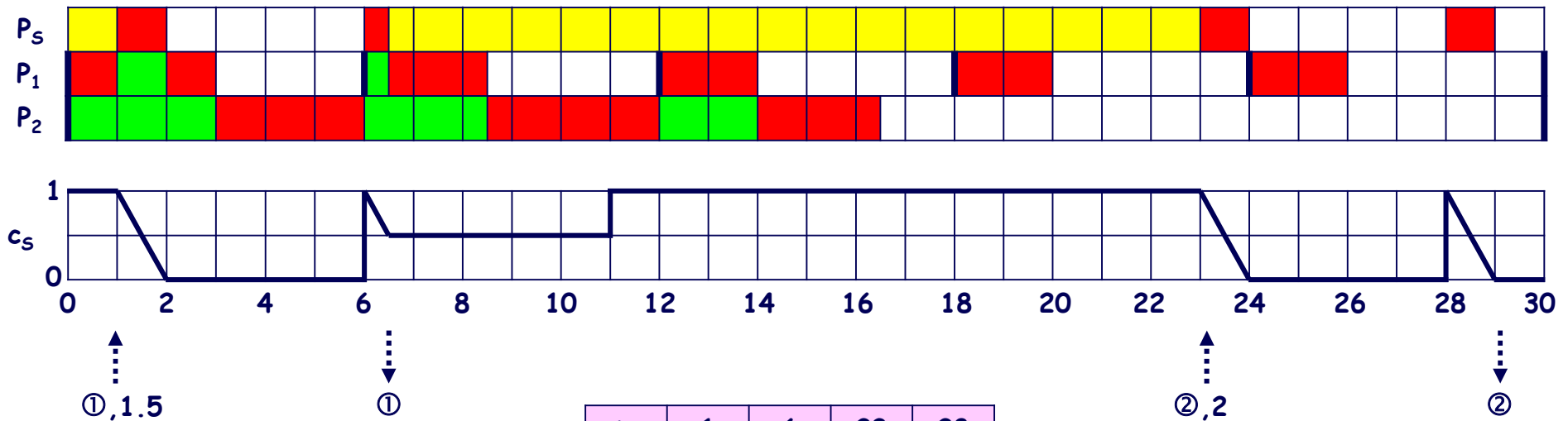
Server a massima priorità:

A_1	C [ms]	T [ms]
P_1	2	6
P_2	9	30

$P_S : T_S = 5 \text{ ms}, C_S = 1 \text{ ms}$

	a [ms]	s [ms]
R_{a1}	1	1.5
R_{a2}	23	2

Idle
Ready
Running
Waiting



t_A	1	6	23	28
t_D	2	6.5	24	29
RA	1	0.5	1	1
RT	6	11	28	33

... SERVIZIO TRAMITE SS

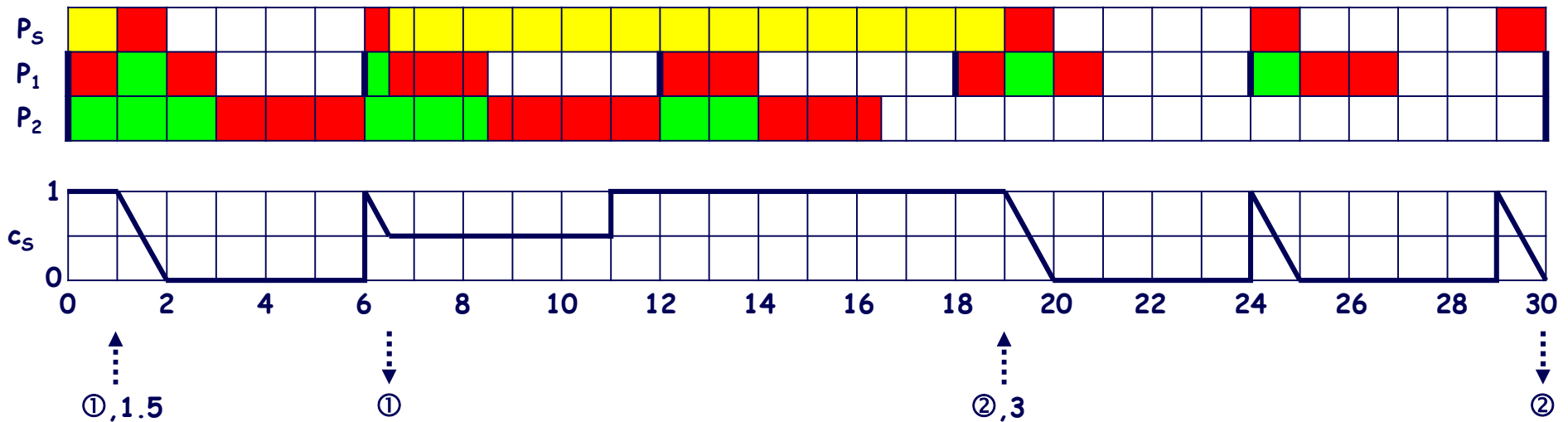
Server a massima priorità:

A_1	C [ms]	T [ms]
P_1	2	6
P_2	9	30

$P_S : T_S = 5 \text{ ms}, C_S = 1 \text{ ms}$

	a [ms]	s [ms]
R_{a1}	1	1.5
R_{a2}	19	3

Idle
Ready
Running
Waiting



t_A	1	6	19	24	29
t_D	2	6.5	20	25	30
RA	1	0.5	1	1	1
RT	6	11	24	29	34