

$$P_3 \text{到} R1 = \frac{5ms}{P_1} + \frac{5ms}{P_2} + \frac{5ms}{P_3}$$

$$P_3 \text{排队} = 115ms - 25ms = 90ms.$$

$$P_3 \text{离开} R1 = 115ms + 50ms = 165ms.$$

$$P_3 \text{到} R2 = 165ms + 90ms = 255ms > \cancel{205ms} 210ms$$

不用排队

$$P_3 \text{离开} R2 = 255 + 5 = 260ms$$

$$P_3 \text{到} B = 260ms + 10ms = 270ms.$$

$$\text{Total queuing delay} = 45 + 90 = 135ms$$

(C) A — ~~R1~~ — R2 — B

$$P1: \text{到} R1 = 15ms$$

$$\text{出} R1 = 65ms$$

$$\rightarrow R2 = 155ms$$

$$R2 \rightarrow = 160ms$$

$$\rightarrow B = 170ms.$$

P2:

$$\text{到} R1 = 15 + 5 + 5 = \cancel{25} 20 + S$$

$$\text{排队} = 65 - (20 + S) = 0 \Rightarrow S = 45$$

$$\text{—} R1 \rightarrow = 65 + 50 = 115ms$$

$$P3: \text{到} R1 = \cancel{30} 25 + S$$

$$R1 \rightarrow =$$

排队3人:

$$115 - (25 + 15) = 90ms$$

$$115 - (25 + 25) = 20.$$

$$\Rightarrow S = 4.5ms$$