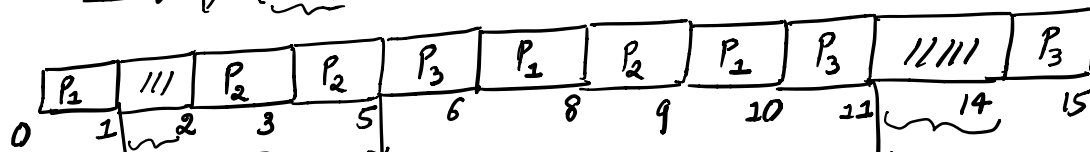


PREEMPTIVE PRIORITY SCHEDULING WITH CPU AND IO BURST

	AT	Priority	CPU BT	I/O BT	CPU BT	ST	CT	TAT	WT	RT
X P ₁	0	2	1	3	3 1	0	10	10	1	0
X P ₂	2	3 _H	2	2	1	2	9	7	0	0
X P ₃	3	1 _L	1	2	1 2	5	15	12	6	2

Ready : ~~P₁~~ ~~P₂~~ ~~P₃~~ ~~P₁~~ ~~P₂~~ ~~P₃~~

I/O : ~~P₁~~ ~~P₂~~ ~~P₃~~



$$1 + 3 = 4$$

$$\text{Avg TAT} = (10 + 7 + 12) / 3 = \frac{29}{3}$$

$$\text{Avg WT} = (1 + 6) / 3 = \frac{7}{3}$$

$$\text{Avg RT} = \frac{2}{3}$$

$$\begin{aligned} \text{TAT} &= \text{CT} - \text{AT} \\ \text{WT} &= \text{TAT} - \text{CPU BT} - \text{I/O BT} \\ \text{RT} &= \text{ST} - \text{AT} \end{aligned}$$

$$\text{CPU utilization} = \frac{15 - 4}{15} \times 100 = \frac{11}{15} \times 100$$

$$= \frac{4}{15} \times 100$$

$$\text{Max(CT)} - \text{Min(AT)}$$

$$\text{Throughput} = \frac{3}{15 - 0} = \frac{1}{5}$$