

Time to do action = 10 ms

Additional = 50 ms

single thread server handles

requests = ?

one third of all requests

Cached from server

Cache hits = 10 ms

cache misses = 50 + 10 = 60 ms

$$\text{Weighted Avg} = \frac{2}{3} \times 10 + \frac{1}{3} \times 60$$

$$= 0.66 \times 10 + 0.88 \times 60$$

$$= 6.667 + 52.8$$

$$= 59.467 \text{ ms}$$

~~By 46.7 ms a request is taken by request~~

~~By 59.467 ms is taken by request~~

$$1000 / 59.467 = 1.682 \text{ PPS second}$$

i) ~~A~~ A single threaded SERVER can handle 1.682 PPS second & requests.

ii)

iii)

vi)