Bài 1

1) ~~Time~~ Minimum time to distributed file using client-server model:

$$D_{CS} = \max\left\{\frac{NF}{u_s}, \frac{F}{d_{min}}\right\}$$

$$= \max\left\{\frac{9 \cdot 9 \cdot 10^9}{96 \cdot 10^6}, \frac{9 \cdot 10^9}{14 \cdot 10^6}\right\}$$

$$= \max\{843{,}75; 642{,}857\} = 843{,}75 \text{ second}$$

2) The root cause of specific minimum time is s

3) Minimumum time to distribute file using P2P model:

$$D_{P2P} = \max\left\{\frac{F}{u_s}, \frac{F}{d_{min}}, \frac{NF}{(u_s + \sum u_i)}\right\}$$

$$= \max\left\{\frac{9 \cdot 10^9}{96 \cdot 10^6}, \frac{9 \cdot 10^9}{14 \cdot 10^6}, \frac{9 \cdot 9 \cdot 10^9}{(96+13+20+16+10+13+17+28+29) \cdot 10^6}\right\}$$

$$= \max\{93{,}75; 642{,}857; 289{,}29\} = 642{,}857 \text{ second}$$

4) The root cause of specific minimum time is d7

Bài 2

1) At point 2, SMTP protocol is used

2) At point 4, SMTP protocol is used

3) At point 6, HTTP protocol is used

4) SMTP use TCP protocol

5) SMTP is a "push" protocol

6) HTTP is a "pull" protocol

7) SMTP use port 25

8) HTTP use port 80

NOTEBOOK