

CN lab Midsem Set 2:Solutions

Part 1:

1. Transport layer: UDP, TCP
2. a. Total No. of lines= 2060+207+3453+1156+9017=15893 bytes
b. Number of HTTP ok requests: 9
Frame No. : 134,401, 460, 475, 508,535, 536, 546, 692
3. a. 10.250.200.3
b. 8
c. Destination Port: 53, Source Port: 40004, Transaction ID: 0xbad2
4. a. 45, 119442 bytes
b.
 - i. Source port : 46594
 - ii. Destination port: 80
 - iii. segment length: 343
 - iv. Sequence number: 1
 - v. Next sequence number: 344
 - vi. Acknowledgment number: 1
 - vii. Header length: 32
c. RTT: 0.000018795
Mathematical Calculation= $1.371702081 - 1.371683286 = 0.000018795$
5.
 - a. 20 bytes(Length) - 8 bytes(header length)= 12 bytes
 - b. $2^{16} - 1 = 65535$
 - c. UDP- 17(0x0011)
 - d. The length (in bytes) of each of the UDP header fields:
Source and destination port: 2 Bytes each
Length: 2 bytes
Check sum: 2 bytes

Part 2: Solutions

The server program is **set_2_server_calculator.py** and client program is **set_2_client_calculator.py**.