HỌ TÊN : **NGUYỄN XUÂN TRỰC**

MSSV : **1513804**

LỚP : **L07**

=========================o0o=========================

Question 01. List 3 different protocols that appear in the protocol column in the unfiltered packet-listing window in step 7 above.

ANSWER

TCP, TLSv1.2, BitTorrent.

Question 02. How long did it take from when the HTTP GET message was sent until the HTTP OK reply was received? (By default, the value of the Time column in the packetlisting window is the amount of time, in seconds, since Wireshark tracing began. To display the Time field in time-of-day format, select the Wireshark View pull down menu, then select Time Display Format, then select Time-of-day.)

ANSWER
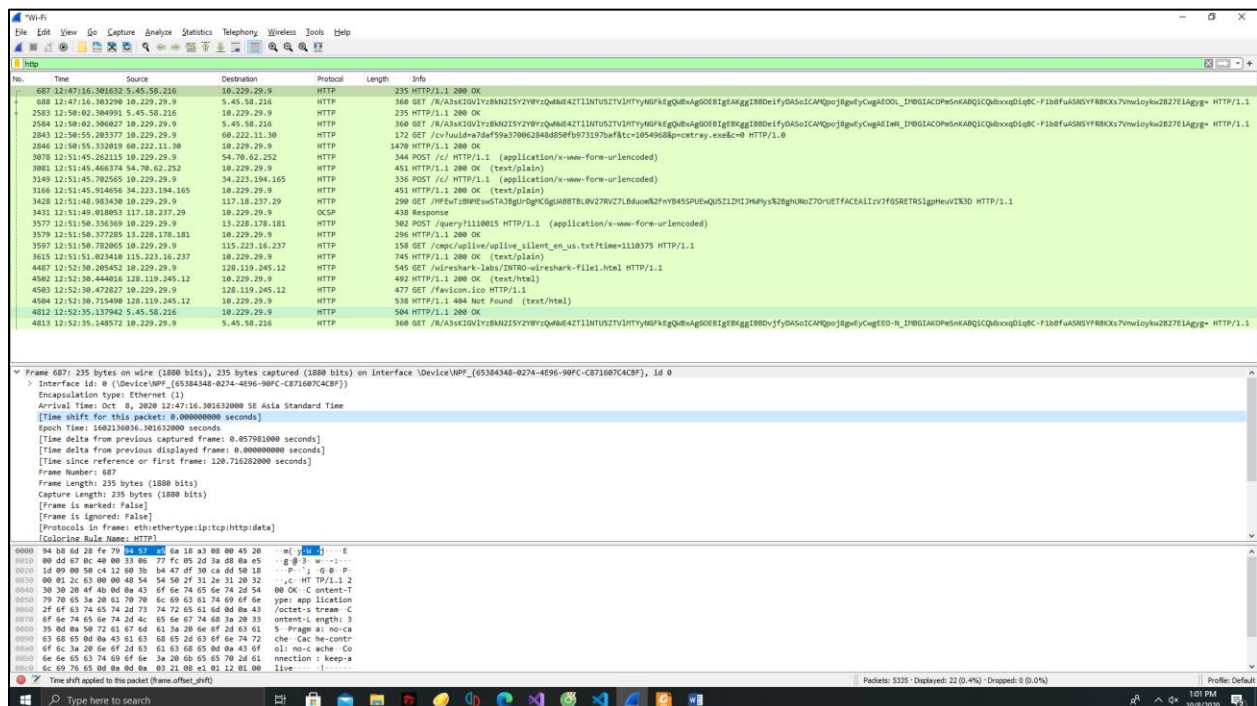
Xấp xỉ 0s (time shift)
Time to get : 12:47:16.303290
Time to OK: 12:50:02.304991

=> length: 00:02:46.1701

Question 03. What is the Internet address of the gaia.cs.umass.edu (also known as wwwnet.cs.umass.edu)? What is the Internet address of your computer?

<div align="center">

ANSWER

</div>
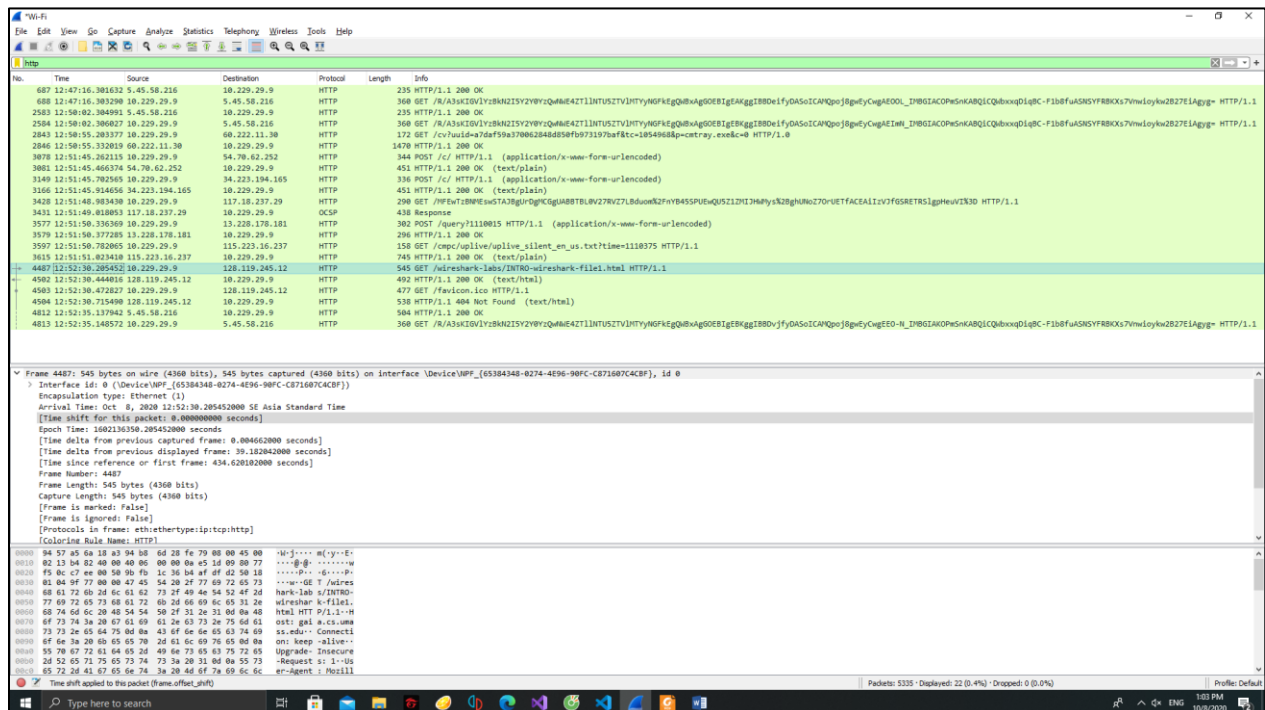
the Internet address of the gaia.cs.umass.edu is 10.229.29.9

the Internet address of my computer is 128.119.245.12

Question 04. Print the two HTTP messages (GET and OK) referred to in question 2 above. To do so, select Print from the Wireshark File command menu, and select the "Selected Packet Only" and "Print as displayed" radial buttons, and then click OK.

<div align="center">

ANSWER

</div>

-get

```
No.      Time              Source            Destination         Protocol Length Info
     688 12:47:16.303290   10.229.29.9       5.45.58.216         HTTP     360    GET /R/
A3sKIGVlYzBkN2I5Y2Y0YzQwNWE4ZTllNTU5ZTVlMTYyNGFkEgQWBxAgGOEBIgEAKggIBBDeifyDASoICAMQpoj8gwEyCwgAEOOL_IMBGIACOPmSnKABQiCQWbxxqDiqBC-
F1b8fuASNSYFRBKXs7Vnwioykw2B27EiAgyg= HTTP/1.1
Frame 688: 360 bytes on wire (2880 bits), 360 bytes captured (2880 bits) on interface \Device\NPF_{65384348-0274-4E96-90FC-
C871607C4CBF}, id 0
    Interface id: 0 (\Device\NPF_{65384348-0274-4E96-90FC-C871607C4CBF})
    Encapsulation type: Ethernet (1)
    Arrival Time: Oct  8, 2020 12:47:16.303290000 SE Asia Standard Time
    [Time shift for this packet: 0.000000000 seconds]
    Epoch Time: 1602136036.303290000 seconds
    [Time delta from previous captured frame: 0.001658000 seconds]
    [Time delta from previous displayed frame: 0.001658000 seconds]
    [Time since reference or first frame: 120.717940000 seconds]
    Frame Number: 688
    Frame Length: 360 bytes (2880 bits)
    Capture Length: 360 bytes (2880 bits)
    [Frame is marked: False]
    [Frame is ignored: False]
    [Protocols in frame: eth:ethertype:ip:tcp:http]
    [Coloring Rule Name: HTTP]
    [Coloring Rule String: http || tcp.port == 80 || http2]
Ethernet II, Src: IntelCor_28:fe:79 (94:b8:6d:28:fe:79), Dst: HewlettP_6a:18:a3 (94:57:a5:6a:18:a3)
Internet Protocol Version 4, Src: 10.229.29.9, Dst: 5.45.58.216
Transmission Control Protocol, Src Port: 50194, Dst Port: 80, Seq: 1, Ack: 182, Len: 306
Hypertext Transfer Protocol
```
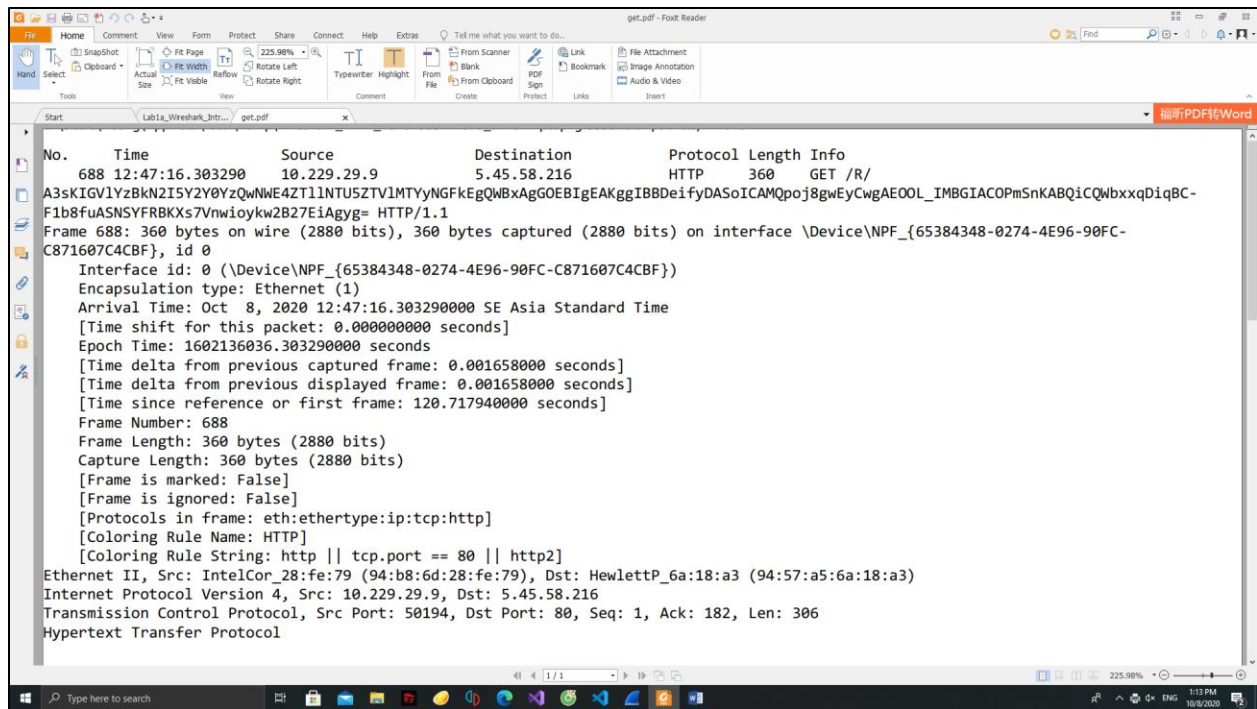
-Ok

```
No.      Time              Source            Destination         Protocol Length Info
     687 12:47:16.301632   5.45.58.216       10.229.29.9         HTTP     235    HTTP/1.1 200 OK
Frame 687: 235 bytes on wire (1880 bits), 235 bytes captured (1880 bits) on interface \Device\NPF_{65384348-0274-4E96-90FC-
C871607C4CBF}, id 0
    Interface id: 0 (\Device\NPF_{65384348-0274-4E96-90FC-C871607C4CBF})
    Encapsulation type: Ethernet (1)
    Arrival Time: Oct  8, 2020 12:47:16.301632000 SE Asia Standard Time
    [Time shift for this packet: 0.000000000 seconds]
    Epoch Time: 1602136036.301632000 seconds
    [Time delta from previous captured frame: 0.057981000 seconds]
    [Time delta from previous displayed frame: 0.000000000 seconds]
    [Time since reference or first frame: 120.716282000 seconds]
    Frame Number: 687
    Frame Length: 235 bytes (1880 bits)
    Capture Length: 235 bytes (1880 bits)
    [Frame is marked: False]
    [Frame is ignored: False]
    [Protocols in frame: eth:ethertype:ip:tcp:http:data]
    [Coloring Rule Name: HTTP]
    [Coloring Rule String: http || tcp.port == 80 || http2]
Ethernet II, Src: HewlettP_6a:18:a3 (94:57:a5:6a:18:a3), Dst: IntelCor_28:fe:79 (94:b8:6d:28:fe:79)
Internet Protocol Version 4, Src: 5.45.58.216, Dst: 10.229.29.9
Transmission Control Protocol, Src Port: 80, Dst Port: 50194, Seq: 1, Ack: 1, Len: 181
Hypertext Transfer Protocol
Data (35 bytes)
0000  03 21 08 e1 01 12 01 00 32 19 08 00 10 e3 8b fc   .!......2.......
0010  83 01 18 80 02 20 83 9e ff b5 d0 2e 28 83 9e ff   ..... ......(...
```