1. 2019btecs00001

Configure the following internetworking device on Cisco packet tracer, and show there working as per there rules define.

A) HUB
B) Switch
C) Router

2. 2019btecs00002

Configure DHCP on cisco packet tracer. Use class C addresses.

Execute Networking command to find the following answer (Both Linux and windows platform)

A) Command to Find IP address of the computer
B) Command to Display Hostname
C) Command to check if a host can be accessed (by ip or name)
D) Command to trace route from a host through internet router to a destination
E) Command to find MAC address of the host.
F) Command to find the path of routers to www.google.com.my. What is its IP address? How many hops involved in the path?

3. 2019btecs00003

Configure following topology using packet tracer tool.
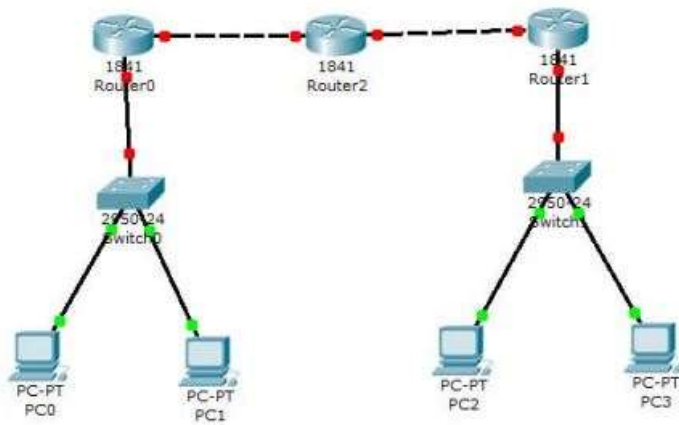
i) Capture HTTP packets by visiting the site below.
http://gaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-file4.html

Answer the following questions:
1. How many HTTP GET request messages did your browser send? To which Internet addresses were these GET requests sent?
2. Can you tell whether your browser downloaded the two images serially, or whether they were downloaded from the two web sites in parallel? Explain.

4. 2019btecs00004

Configure the following network topology ,configure DHCP for allocating addresses to new machines that will added later.
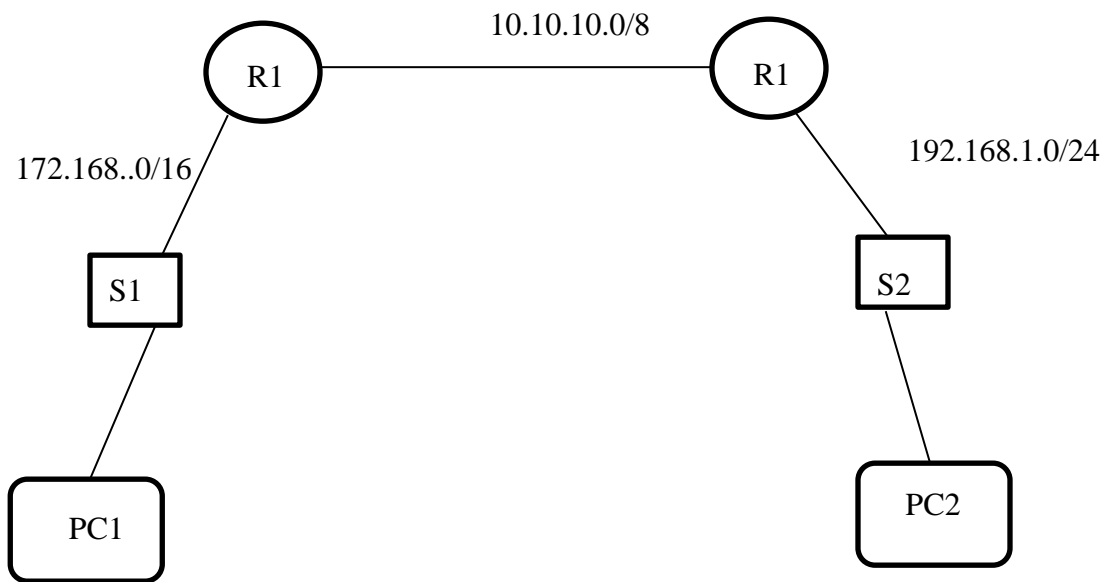
10.10.10.0/8

R1 —————————————— R1

172.168..0/16

192.168.1.0/24

S1

S2

PC1

PC2

ii) Capture HTTP packets by visiting the site below.
http://gaia.cs.umass.edu/wireshark-labs/protected_pages/HTTP-wireshark-file5.html
The username is "wireshark-students" (without the quotes), and the password is "network" (again, without the quotes).
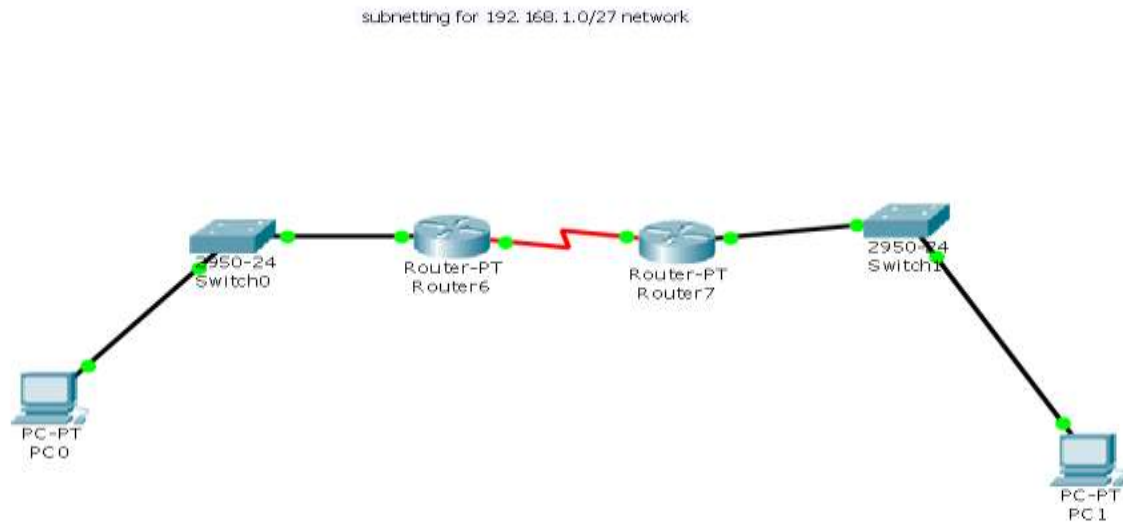Answer the following questions:
3. What is the server's response (status code and phrase) in response to the initial HTTP GET message from your browser?
4. When your browser's sends the HTTP GET message for the second time, what new field is included in the HTTP GET message?

5. 2019btecs00005

Configuration of Sub-netting using cisco packet tracer

subnetting for 192. 168. 1.0/27 network

Execute Networking command to find the following answer (Both Linux and windows platform)

A) Command to Find IP address of the computer
B) Command to Display Hostname
C) Command to check if a host can be accessed (by ip or name)
D) Command to trace route from a host through internet router to a destination

6. 2019btecs00006

Design the following network in Packet Tracer
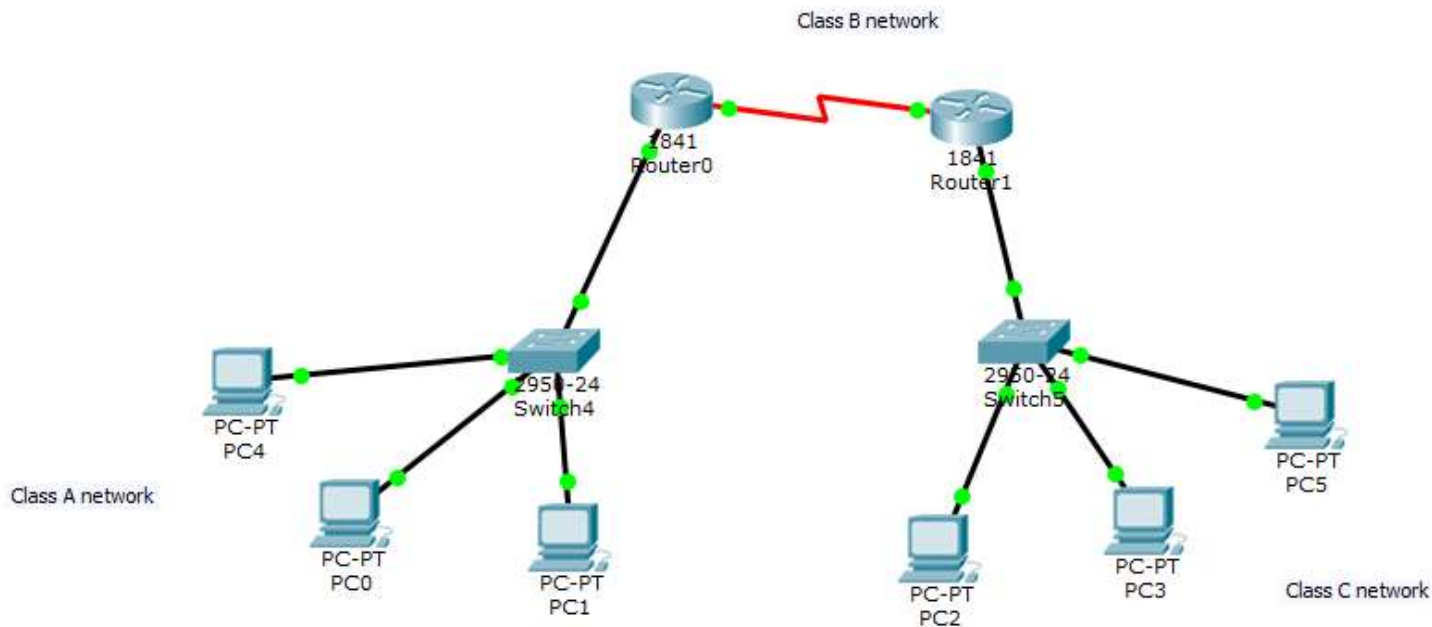
Class B network

7. 2019btecs00007

Walchand college has 4 departments and you have to assign gateway to each department in class C network. Suppose 192.168.1.19 /24 is an address from the block given by ISP , so you have to decide how many bits you need to borrow for this 4 network. And demonstrate on Cisco Packet tracer

192.168.1.19/24
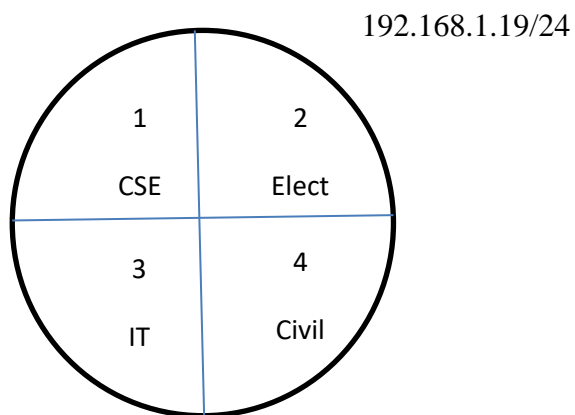
8. 2019btecs00008

i) Capture HTTP packets by visiting the site below.
http://gaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-file4.html

Answer the following questions:
1. How many HTTP GET request messages did your browser send? To which Internet addresses were these GET requests sent?
2. Can you tell whether your browser downloaded the two images serially, or whether they were downloaded from the two web sites in parallel? Explain.

ii) Capture HTTP packets by visiting the site below.
http://gaia.cs.umass.edu/wireshark-labs/protected_pages/HTTP-wireshark-file5.html
The username is "wireshark-students" (without the quotes), and the password is "network" (again, without the quotes).
Answer the following questions:
3. What is the server's response (status code and phrase) in response to the initial HTTP GET message from your browser?
4. When your browser's sends the HTTP GET message for the second time, what new field is included in the HTTP GET message?

9. 2019btecs00009

Capture HTTP packets using Wireshark by visiting following site

http://gaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-file2.html

Answer the following questions:
1. Inspect the contents of the first HTTP GET request from your browser to the server. Do you see an "IF-MODIFIED-SINCE" line in the HTTP GET?
2. Inspect the contents of the server response. Did the server explicitly return the contents of the file? How can you tell?
3. Now inspect the contents of the second HTTP GET request from your browser to the server. Do you see an "IF-MODIFIED-SINCE:" line in the HTTP GET? If so, what information follows the "IF-MODIFIED-SINCE:" header?
4. What is the HTTP status code and phrase returned from the server in response to this second HTTP GET? Did the server explicitly return the contents of the file?
Explain.

Create subnets for class C addresses in Packet tracer.

10. 2019btecs00010

Capture HTTP packets using wireshark by visiting www.walchandsangli.ac.in and answer the following questions.
1. Is your browser running HTTP version 1.0 or 1.1? What version of HTTP is the server running?
2. What languages (if any) does your browser indicate that it can accept to the server?
3. What is the IP address of your computer? Of server?
4. What is the status code returned from the server to your browser?
5. When was the HTML file that you are retrieving last modified at the server?
6. How many bytes of content are being returned to your browser?

Create subnets for class B addresses in Packet tracer.

11. 2019btecs00011

i) Using commands display the contents of ARP cache and delete the contents of ARP cache.
ii) Capture ARP frames.
By visiting
http://imada.sdu.dk/~jamik/dm543-13/material/bill-of-rights.html

Answer the following
What are the hexadecimal values for the source and destination addresses in the Ethernet frame containing the ARP request message?

Give the hexadecimal value for the two-byte Ethernet Frame type Field. What upper layer protocol does this correspond to?

How many bytes from the very beginning of the Ethernet frame does the ARP opcode Field begin?

What is the value of the opcode Field within the ARP-payload part of the Ethernet frame in which an ARP request is made?

Does the ARP message contain the IP address of the sender?

Where in the ARP request does the \question" appear { the Ethernet address of the machine whose corresponding IP address is being queried?

12. 2019btecs00013

 Capture Ethernet packets using wireshark by visiting the following site
http://imada.sdu.dk/~jamik/dm543-13/material/bill-of-rights.html

Answer the following questions, based on the contents of the Ethernet frame containing the
HTTP GET message.

1.What is the 48-bit Ethernet address of your computer?

2. What is the 48-bit destination address in the Ethernet frame? Is this the Ethernet address of imada.sdu.dk?
What device has this as its Ethernet address?

3. Give the hexadecimal value for the two-byte Frame type field. What upper layer protocol does this
correspond to?

Answer the following questions, based on the contents of the Ethernet frame containing the first byte of the
HTTP response message.

4. What is the value of the Ethernet source address? Is this the address of your computer, or of imada.sdu.dk ?
What device has this as its Ethernet address?

5. What is the destination address in the Ethernet frame? Is this the Ethernet address of your computer?

6. Give the hexadecimal value for the two-byte Frame type field. What upper layer protocol does this
correspond to?

13. 2019btecs00014

i) Using commands display the contents of ARP cache and delete the contents of ARP cache.
 ii) Capture ARP frames.
By visiting
 http://imada.sdu.dk/~jamik/dm543-13/material/bill-of-rights.html

Answer the following

Now find the ARP reply that was sent in response to the ARP request.

How many bytes from the very beginning of the Ethernet frame does the ARP opcode Field begin?

What is the value of the opcode Field within the ARP-payload part of the Ethernet frame in which an ARP response is made?

Where in the ARP message does the \answer" to the earlier ARP request appear {the IP address of the machine having the Ethernet address whose corresponding IP address is being queried?

What are the hexadecimal values for the source and destination addresses in the Ethernet frame containing the ARP reply message?

If the first and second ARP packets in a trace correspond to an ARP request sent by the computer running Wireshark, and the ARP reply sent to the computer running Wireshark by the computer with the ARP-requested Ethernet address. But there is yet another computer on the network, as indicated by packet 6 { another ARP request. Why is there no ARP reply (sent in response to the ARP request in packet 6) in the packet trace?

14. 2019btecs00015

Capture HTTP packets using wireshark by visiting www.walchandsangli.ac.in and answer the following questions.
1. Is your browser running HTTP version 1.0 or 1.1? What version of HTTP is the server running?
2. What languages (if any) does your browser indicate that it can accept to the server?
3. What is the IP address of your computer? Of server?
4. What is the status code returned from the server to your browser?
5. When was the HTML file that you are retrieving last modified at the server?
6. How many bytes of content are being returned to your browser?

Create subnets for class C addresses in Packet tracer.

15. 2019btecs00016

Execute Networking command to find the following answer (Both Linux and windows platform)

    A) Command to Find IP address of the computer
    B) Command to Display Hostname
    C) Command to check if a host can be accessed (by ip or name)
    D) Command to trace route from a host through internet router to a destination
    E) Command to find MAC address of the host.
    F) Command to find the path of routers to www.google.com.my. What is its IP address? How many hops involved in the path?

Create subnets for class B addresses in Packet tracer.

16. 2019btecs00017

Configure the following internetworking device on Cisco packet tracer, and show there working as per there rules define.

    D) HUB
    E) Switch
    F) Router

i) Capture HTTP packets by visiting the site below.
http://gaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-file4.html

Answer the following questions:
1. How many HTTP GET request messages did your browser send? To which Internet addresses were these GET requests sent?
2. Can you tell whether your browser downloaded the two images serially, or whether they were downloaded from the two web sites in parallel? Explain.

17. 2019btecs00018

Configure following topology using packet tracer tool with DHCP.