



**COMSATS UNIVERSITY
ISLAMABAD
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LAB TASK

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REG NO: SP23-BSE-050

CLASS: BSE-5B

SUBJECT: COMPUTER NETWORKS

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PART 1

Question 1

What is the destination port for the DNS query message? What is the source port of DNS response message?

SRC PORT: 60913

DST PORT: 53

Question 2

To what IP address is the DNS query message sent? Is this the IP address of your default local DNS server?

DNS Servers : 172.20.10.15

SRC: 172.20.43.51

DNS: 172.20.10.15

Yes both are same so the ip address is of local default DNS server

Question 3

Examine the DNS query message. What "Type" of DNS query is it? Does the query message contain any "answers"?

```

0... .. = Response: Message is a query
.000 0... .. = Opcode: Standard query (0)
... ..0. .... = Truncated: Message is not truncated
... ..1 .... = Recursion desired: Do query recursively
... ..0. .... = Z: reserved (0)
... ..0 .... = Non-authenticated data: Unacceptable
Questions: 1
Answer RRs: 0
Authority RRs: 0
Additional RRs: 0
▼ Queries
  ▼ disc801.prod.do.dsp.mp.microsoft.com: type A, class IN
    Name: disc801.prod.do.dsp.mp.microsoft.com
    [Name Length: 36]
    [Label Count: 7]
    Type: A (1) (Host Address)
    Class: IN (0x0001)
    [Response In: 97]

```

Answer is 0 and type is A

Question 4

Examine the DNS response message. How many “answers” are provided? What do each of these answers contain?

```

      .... 1... .. = RECURSION AVAILABLE: SERVER CAN DO RECURSIVE QUERIES
      .... .0.. ... = Z: reserved (0)
      .... ..0. ... = Answer authenticated: Answer/authority portion was not auther
      .... ...0 .... = Non-authenticated data: Unacceptable
      .... .... 0000 = Reply code: No error (0)
Questions: 1
Answer RRs: 3
Authority RRs: 0
Additional RRs: 0
  ✓ Queries
    ✓ disc801.prod.do.dsp.mp.microsoft.com: type A, class IN
      Name: disc801.prod.do.dsp.mp.microsoft.com
      [Name Length: 36]
      [Label Count: 7]
      Type: A (1) (Host Address)
      Class: IN (0x0001)
  > Answers
    [Unsolicited: True]
```

PART 2

PC0

Physical Config **Desktop** Programming Attributes

Command Prompt

```
Cisco Packet Tracer PC Command Line 1.0
C:\> ping 192.168.16.4

Pinging 192.168.16.4 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 192.168.16.4:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\> ping shayan
Ping request could not find host shayan. Please check the name and try again.
C:\> ping shayan

Pinging 192.168.16.3 with 32 bytes of data:

Reply from 192.168.16.3: bytes=32 time=15ms TTL=128
Reply from 192.168.16.3: bytes=32 time<1ms TTL=128
Reply from 192.168.16.3: bytes=32 time<1ms TTL=128
Reply from 192.168.16.3: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.16.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 15ms, Average = 3ms

C:\>|
```

Server0

Physical Config **Services** Desktop Programming Attributes

SERVICES

- HTTP
- DHCP
- DHCPv6
- TFTP
- DNS**
- SYSLOG
- AAA
- NTP
- EMAIL
- FTP
- IoT
- VM Management
- Radius EAP

DNS

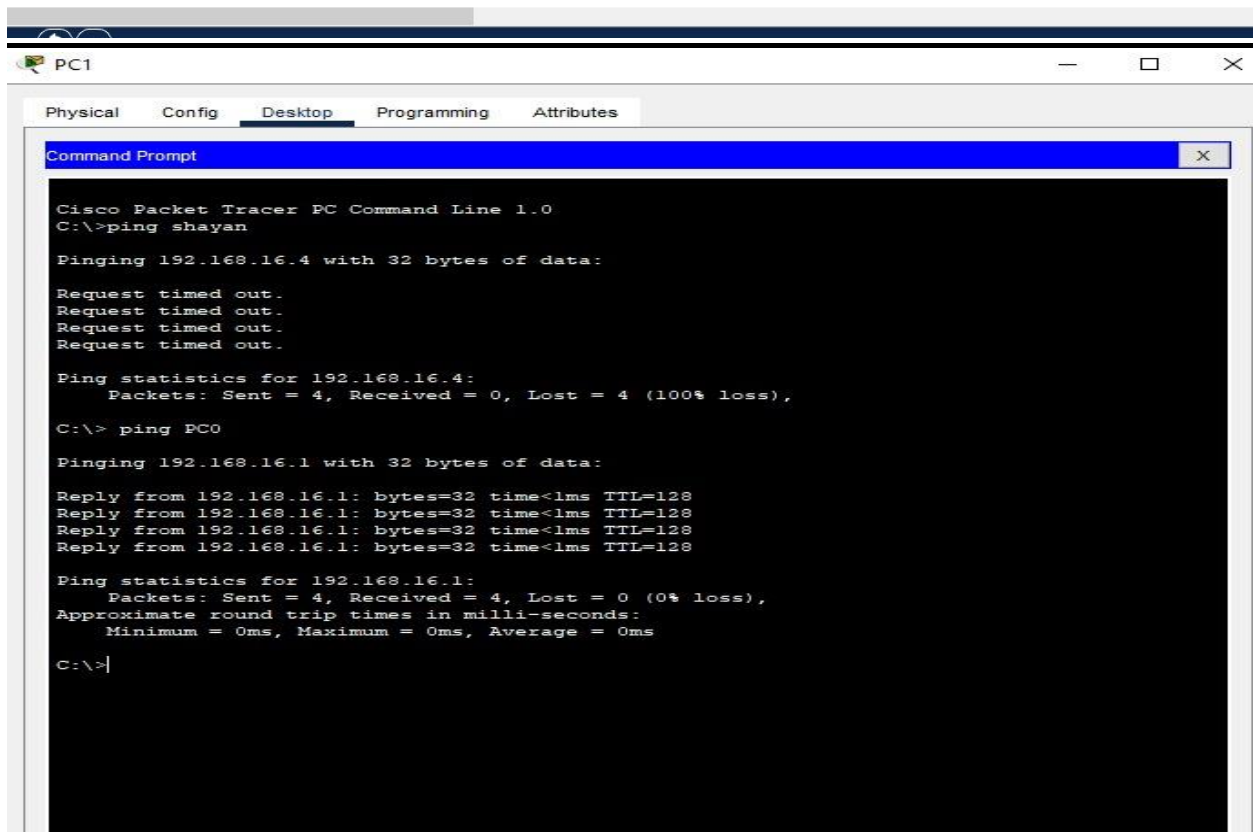
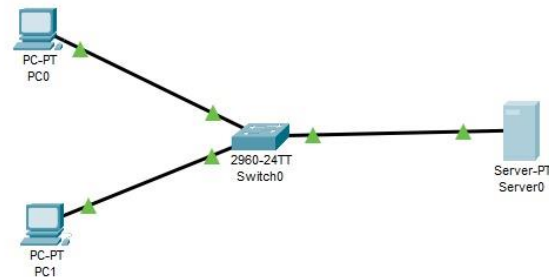
DNS Service ☒ On ☐ Off

Resource Records

Name Type **A Record** ▼

Address

No.	Name	Type	Detail
0	pc0	A Record	192.168.16.1
1	shayan	A Record	192.168.16.3



Server0

Physical Config Services **Desktop** Programming Attributes

IP Configuration X

IP Configuration

☐ DHCP ☒ Static

IPv4 Address 192.168.16.3

Subnet Mask 255.255.255.0

Default Gateway 0.0.0.0

DNS Server 0.0.0.0

IPv6 Configuration

☐ Automatic ☒ Static

IPv6 Address /

Link Local Address FE80::201:C9FF:FE39:5224

Default Gateway

DNS Server

PC1

Physical Config **Desktop** Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IPv4 Address 192.168.16.2

Subnet Mask 255.255.255.0

Default Gateway 0.0.0.0

DNS Server 192.168.16.3

PC0

Physical Config **Desktop** Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IPv4 Address 192.168.16.1

Subnet Mask 255.255.255.0

Default Gateway 0.0.0.0

DNS Server 192.168.16.3