DC&CN Lab Practice

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CSE - 2

**Answer the following questions:**

Q.1 Are DHCP messages sent over UDP or TCP?

Ans- Sent over UDP.

A screenshot of a computer

Description automatically generated

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Q.2 What is the link-layer (e.g., Ethernet) address of your host?

Ans- Address: 00:2e:2d:00:71:27 (00:2e:2d:00:71:27)



Q.3 What values in the DHCP discover message differentiate this message from the DHCP request message?

Ans- In DHCP the key differences include:

1. The "Operation Code" field is set to 1 in a DHCP Discover message and 3 in a DHCP Request message.
2. The "CIADDR" (Client IP Address) field is typically set to 0.0.0.0 in a DHCP Discover message but contains the client's current IP address in a DHCP Request message.
3. The "Requested IP Address" and "Server Identifier" options may be present in the DHCP Request message but are typically not included in the DHCP Discover message.

A close up of a message

Description automatically generated

Q.4 What is the value of the Transaction-ID in Discover/Offer/Request/ACK DHCP messages? What is the purpose of the Transaction-ID field?

Ans- Transaction ID: 0x0eb835fb



Q.5 What is the IP address of your DHCP server?

Ans- DHCP Server Identifier: 10.1.0.49

A close-up of a computer error

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Q.6 What IP address is the DHCP server offering to your host in the DHCP Offer message? Indicate

Ans- Your (client) IP address: 10.7.21.76





which DHCP message contains the offered DHCP address.

Q.7 Explain the purpose of the router and subnet mask lines in the DHCP offer message.

Ans- The subnet mask line tells the client which subnet mask to use. The router line indicates where the client should send messages by default.

Q.8 Explain the purpose of the lease time. How long is the lease time in your experiment?

Ans- The purpose of lease time is to tell the client how long they can use the specific IP address assigned by the server before they will have to be assigned a new one.