**Part A**

**Q.1**

192.168.122.79 and 192.168.122.108

**Q.2**

192.168.122.1 for both, which is the ip address of the NAT.

**Q.3**

Yes

**Part B:**

**Q.1:**

Discovery (broadcast): Src (Client): IP: 0.0.0.0 ETH: 0e:d8:a7:70:97:15

Dst (Server): IP 255.255.255.255 ETH: ff:ff:ff:ff:ff:ff

Offer (unicast): Src (Server): IP: 192.168.122.1 ETH: 52:54:00:79:0c:75

Dst (Client): IP 192.168.122.204 ETH: 0e:d8:a7:70:97:15

Request (broadcast): Src (Client): IP: 0.0.0.0 ETH: 0e:d8:a7:70:97:15

Dst (Server): IP 255.255.255.255 ETH: ff:ff:ff:ff:ff:ff

Ack (unicast): Src (Server): IP: 192.168.122.1 ETH: 52:54:00:79:0c:75

Dst (Client): IP 192.168.122.204 ETH: 0e:d8:a7:70:97:15

**Q.2:** 1 hour

**Q.3:** Next server IP address: 192.168.122.1. There’s also a field called Option (3) Router, which contains Router: 192.168.122.1.

**Q.4:** DHCP is in the application layer of the IP suite. It is implemented using UDP, which is in the transport layer of the IP suite.