Exercise-15

Aim a) Implement packet sniffing using raw packets.

```
import socket
import struct
import binascii

sock = socket.socket(socket.AF_PACKET,
                     socket.SOCK_RAW, socket.ntohs(0x0003))
sock.bind(("eth0", 0))
interface

while True
    packet, addr = sock.recvfrom(65565)

eth_header = packet[0:14]
eth = struct.unpack("!6s6s2s", eth_header)
ether_type = binascii.hexlify(eth[2])

if ether_type == b'0800':
    ip_header = packet[14:34]
    ip_header = struct.unpack("!BBHHHBBH4s4s",
    protocol = ip_hdr[6]                    ip_header)
    src_addr = socket.inet_ntoa(ip_hdr[8])
    dest_addr = socket.inet_ntoa(ip_hdr[9])

if protocol == 6:
    tcp_header = Packet[34:54]
    tcp_hdr = struct.unpack("!HHLLBBHHH",
                                tcp_header)
    src_port = tcp_hdr[0]
    dest_port = tcp_hdr[1]
```

```
elif protocol=12:
    udp_header=packet[34:42]
    udp_hdr= struct.unpack('!HHHH',udp_header)
    src_port= udp_hdr[0]
    dest_port= udp_hdr[1]

print("\n")
```