9.practice 17 - sep

Btech Electronic and Communication Engineering (Vellore Institute of Technology)

1. An IP datagram has arrived with the following information in the header (in hexadecimal):

   45 00 00 54 00 03 00 00 20 06 00 00 7C 4E 03 02 B4 0E 0F 02

   a. Are there any options?
   b. Is the packet fragmented?
   c. What is the size of the data?
   d. Is a checksum used?
   e. How many more routers can the packet travel to?
   f. What is the identification number of the packet?
   g. What is the type of service?
2. In a datagram, the M bit is zero, the value of HLEN is 5, the value of total length is 200, and the offset value is 200. What is the number of the first byte and number of the last byte in this datagram? Is this the last fragment, the first fragment, or a middle fragment?
3. An IP datagram must go through router 128.46.10.5. There are no other restrictions on the routers to be visited. Draw the IP options with their values.
4. An IP fragment has arrived with an offset value of 100. How many bytes of data were originally sent by the source before the data in this fragment?
5. An IPv6 packet consists of the base header and a TCP segment. The length of data is 320 bytes. Show the packet and enter a value for each field.