Homework 4

Problem 1:

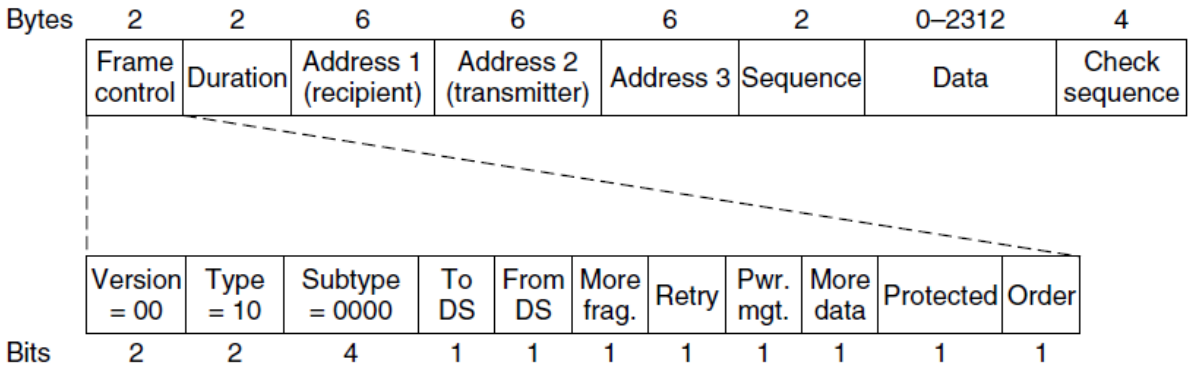
(a) How does the Ethernet address A0:B2:C3:D4:E5:F6 appear in binary on the line?
(b) What is the overhead ratio for the smallest Ethernet package.
(c) In a Gigabit Ethernet, the average size of a frame is 1000 bytes. How many frames can be destroyed if a noise of duration 10 msec appears on the line.
(d) An ethernet sublayer receives a data-gram of 40 B length from the upper layer. How much padding has to be added?

Problem 2:

A IEEE 802.11 frame has been captured. Its contents are given in hex.

```
88 42 30 00 38 f9 d3 90   56 5a 64 a5 c3 69 52 4d
64 a5 c3 5e ac 95 30 ca   00 00 9b aa 00 20 56 00
00 00 c2 99 19 cd bf 61   68 9f 82 f0 08 f3 66 63
...
```

Notice: Each byte (not hex digit) is captured in reverse order from the bit order given in the following diagram.



Determine the type of package (traveling inside a BSS, traveling from DS to station, traveling from station to DS, or going from AP to another AP), destination, source, and AP address.