**Exercise 2 chapter 13:**

**Suppose a higher layer application wants to send a file 12MB in size across an Ethernet LAN. How many Ethernet frames are needed? Assume the largest Ethernet payload is 1500 bytes.**

Answer: The aim of this is to send **12MB** of data which must be broken down into Ethernet frames holding **1500 Bytes** of content each.

The file here is 12 x 10,48,576 Bytes = **1,25,82,912 Bytes.**

No of ethernet frames needed = 12582912 / 1500 = **8389.**

**Exercise 1 chapter 13:**

**In the Ethernet frame described in the text (figure 13.5 page # 410), what is the minimum and a maximum number of bytes?**

Answer:

**Using figure 13.5 page #410**

Payload minimum = 46

Preamble and start frame delimiter = 8

CRC = 4

Number of data bytes = 2

Destination and Source MAC address = 12

The minimum no of bytes = 46 + 8 + 4 + 2 + 12 = **72 Bytes.**

Payload maximum = 1500

Preamble and start frame delimiter = 8

CRC = 4

Number of data bytes = 2

Destination and Source MAC address = 12

The maximum no of bytes = 1500 + 8 + 4 + 2 + 12 = **1526 Bytes.**