ITS323 – Quiz 6

Name: _____

ID: _____   Mark: _____ (out of 5)

Question 1 [2 marks]

In an internet, three types of fragmentation (and re-assembly) are possible

> Type 1:   Fragment at source, re-assemble at destination
>
> Type 2:   Fragment at source and routers, re-assemble at destination
>
> Type 3:   Fragment at source and routers, re-assemble at routers and destination

Consider the path as shown below, where the maximum frame size (in Bytes) for each link is shown.

$$A \longleftarrow 1500 \longrightarrow B \longleftarrow 1000 \longrightarrow C \longleftarrow 500 \longrightarrow D \longleftarrow 2000 \longrightarrow E$$

If Type 2 fragmentation and re-assembly is used, list the fragments that would be sent over the 2nd link (from B to C) if source A had 4000 Bytes of data to send to destination E. For each fragment, indicate its size.

Question 2 [2 marks]

The two special cases addresses (directed broadcast and network) are not allowed to assigned to interfaces of hosts or routers. Assume a router on a LAN has IP address 96.107.19.4. What is the maximum number of IP hosts that can be attached to the same LAN as the router? Explain your answer.

Question 3 [1 mark]

Explain the main difference between a host and a router?