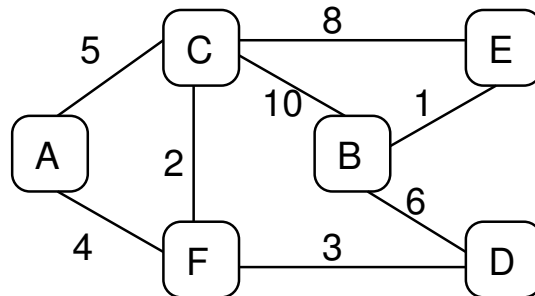# ITS323 − Quiz 5

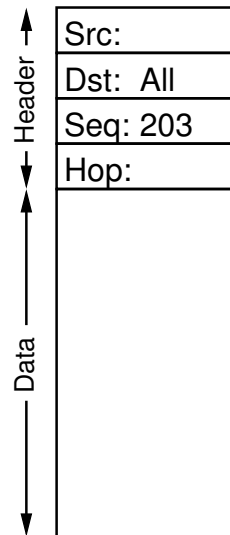Name: _____ ID: _____ Marks: _____ (10)

Question 1   [4 marks]

Consider the network below. Draw and complete the routing table for node A (you must include *cost* in the routing table as well as the other required information).

Question 2   [4 marks]

Assume link state routing is used in the network from Question 1. Each node informs all other nodes of the status of its links by sending a Link State Packet (LSP). The LSP contains a header and data. Complete the LSP that node D sends. The hop limit should be chosen as the smallest value such that all nodes will be reached.

```
         ┌──────────────┐
  ↑      │ Src:         │
  │      ├──────────────┤
 Header  │ Dst:  All    │
  │      ├──────────────┤
  │      │ Seq: 203     │
  ↓      ├──────────────┤
  ↑      │ Hop:         │
  │      ├──────────────┤
  │      │              │
  │      │              │
 Data    │              │
  │      │              │
  │      │              │
  ↓      │              │
         └──────────────┘
```

Question 3   [2 marks]

(a) How many cables (links) are necessary in a star topology LAN that has 30 computers?

(b) What is a disadvantage of the topology in part (a) when compared to a mesh topology?