ITS323 − Quiz 5

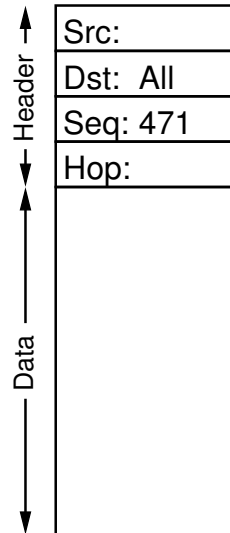Name: ⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯ ID: ⎯⎯⎯⎯⎯⎯⎯⎯ Marks: ⎯⎯ (10)

Question 1 [4 marks]

Consider the network below. Draw and complete the routing table for node D (you must include *cost* in the routing table as well as the other required information).
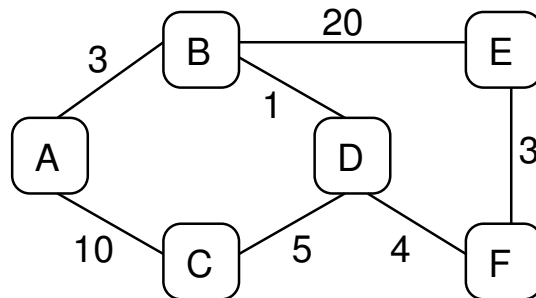
Question 2 [4 marks]

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 A sends. The hop limit should be chosen as the smallest value such that all nodes will be reached.

```
        ┌─────────────┐
  ▲     │ Src:        │
  │     ├─────────────┤
Header  │ Dst:  All   │
  │     ├─────────────┤
  │     │ Seq: 471    │
  ▼     ├─────────────┤
        │ Hop:        │
  ▲     ├─────────────┤
  │     │             │
  │     │             │
  │     │             │
Data    │             │
  │     │             │
  │     │             │
  ▼     │             │
        └─────────────┘
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Question 3 [2 marks]

(a) How many cables (links) are necessary in a mesh topology LAN that has 10 computers?

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