

IS8055556: Data and Computer Communications
Semester 2 5786
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Recitation 8
9 June 2026
Tel Hai College

Weighted Datagram and Virtual Circuit Switching

1 Weighted Datagram Networks

For the network given in Figure 1, give the datagram forwarding table for each node. The links are labeled with relative costs; your tables should forward each packet via the lowest-cost path to its destination.

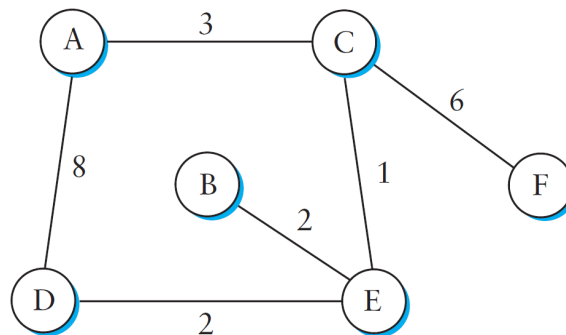


Figure 1: Network for weighted datagram network question

2 Virtual Circuit Routing

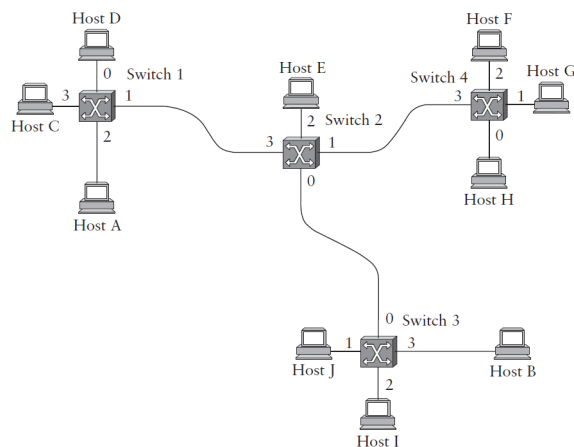


Figure 2: Example Network

Using the example network given in Figure 2, give the virtual circuit tables for all the switches after each of the following connections is established. Assume that the sequence of connections is cumulative; that is, the first connection is still up when the second connection is established, and so on. Also assume that the VCI assignment always picks the lowest unused VCI on each link, starting with 0.

- (a) Host D connects to host H.
- (b) Host B connects to host G.
- (c) Host F connects to host A.
- (d) Host H connects to host C.
- (e) Host I connects to host E.
- (f) Host H connects to host J.