

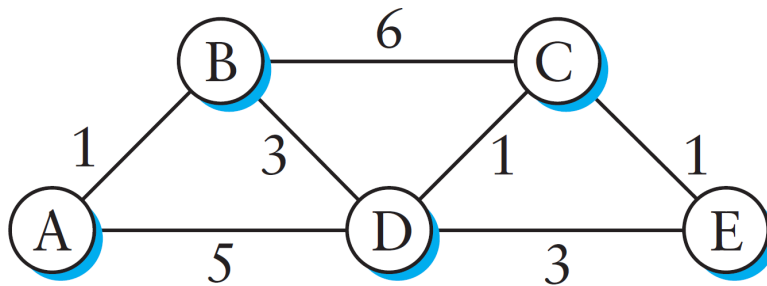
Course ISE 327, EEE 051: Introduction to Computer Networks
Recitation 10 Exercise

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1 Dijkstra's Algorithm (OSPF)

Give the steps as in the table from the slides for the forward search algorithm as it builds the routing database for node A in the network shown:



2 Queuing Disciplines

Suppose a router has three input flows and one output. It receives the packets listed in Table 1 all at about the same time, in the order listed, during a period in which the output port is busy but all queues are otherwise empty. Give the order in which the packets are transmitted, assuming

- (a) First In First Out queuing
- (b) Priority Queuing with Flow 1 as HIGH, Flow 2 as MEDIUM, Flow 3 as LOW
- (c) Round Robin Queuing
- (d) fair queuing
- (e) weighted fair queuing with flow 2 having twice as much share as flow 1, and flow 3 having 1.5 times as much share as flow 1. Note that ties are to be resolved in order flow 1, flow 2, flow 3.

Packet	Size	Flow
1	200	1
2	200	1
3	160	2
4	120	2
5	160	2
6	210	3
7	150	3
8	90	3

Table 1: Table for Exercise 2