

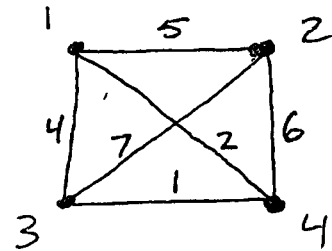
Attendance Quiz for Lecture 8

NAME: (print!) Shivam Patel

E-MAIL ADDRESS: (print!) sp1960@scarletmail.rutgers.edu

1. There is a network of 4 cities 1, 2, 3, 4 with the following distances

- distance between 1 and 2 is 5 miles
- distance between 1 and 3 is 4 miles
- distance between 1 and 4 is 2 miles
- distance between 2 and 3 is 7 miles
- distance between 2 and 4 is 6 miles
- distance between 3 and 4 is 1 mile



Solve the travelling salesman problem for this network.

path	cost
$1 \rightarrow 2 \rightarrow 4 \rightarrow 3 \rightarrow 1$	<del>16</del> <del>15</del> 20
$1 \rightarrow 2 \rightarrow 3 \rightarrow 4 \rightarrow 1$	15 ★
$1 \rightarrow 3 \rightarrow 2 \rightarrow 4 \rightarrow 1$	19
$1 \rightarrow 3 \rightarrow 4 \rightarrow 2 \rightarrow 1$	16
$1 \rightarrow 4 \rightarrow 2 \rightarrow 3 \rightarrow 1$	19
$1 \rightarrow 4 \rightarrow 3 \rightarrow 2 \rightarrow 1$	15 ★

ANS:  $1 \rightarrow 2 \rightarrow 3 \rightarrow 4 \rightarrow 1$

AND  $1 \rightarrow 4 \rightarrow 3 \rightarrow 2 \rightarrow 1$  [THE REVERSE]