

# An Introduction to Computer Networks

## Problem Set 2 - Solutions

The maximum score is 540 points.

Except for question 4 B-1, each correct assertion checked is worth 10 points, and each incorrect assertion checked is worth -10 points.

### 1. The Chewy Center of the Internet

**Question A-1:** False - 10 points

**Question A-2:** True - 10 points

**Question A-3:** True - 10 points

**Question A-4:** True - 10 points

**Question B-1:** True - 10 points

**Question B-2:** False - 10 points

**Question B-3:** False - 10 points

**Question B-4:** a,f,g,h - 40 points

### 2. What's in a Name?

**Question A:** f - 10 points

**Question B:** a - 10 points

**Question C:** b,d,g - 30 points

**Question D:** a,d - 20 points

### 3. Here, there everywhere

**Question A:** a,b,c,d,h - 50 points

**Question B:** False - 10 points

**Question C:** False - 10 points

**Question D:** False - 10 points

**Question E:** False - 10 points

**Question F:** False - 10 points

**Question G:** b,e,f - 30 points

**Question H:** False - 10 points

**Question I:** False - 10 points

4. **Getting From Here to There**

**Question A:** a - 10 points

**Question B-1:** Each cell is worth 5 points, except the top-left one, which is worth 10 points

Step	0	1	2	3	4	5	6
Shortest Path Set	R4	R4,R2	R4,R2,R5	R4,R2 R5,R3	R4,R2 R5,R3,R6	R4,R2,R5 R3,R1,R6	R4,R2,R5 R3,R1,R6,B1
Candidate Set	R2,R5 R6	R3,R1 R5,R6	R3,R6 R1	R6,R1 B1	R1,B1	B1	empty
Add	R2	R5	R3	R6	R1	B1	done

**Question B-2:** b - 10 points

**Question B-3:** b - 10 points

**Question C-1:** b - 10 points

**Question C-2:** c,e,f - 30 points

**Question D:** d - 10 points

**Question E:** c,d - 20 points

5. **CSMA/CD** b - 10 points