CS3205 Lab5 Report

Input 1:
11 35
0 1 10 15
0 2 20 30
0 4 17 23
0 6 15 20
0 8 2 9
0 9 10 15
0 10 20 30
1 2 12 16
1 4 1 15
1 5 3 30
1 7 8 19
1 9 21 29
1 10 22 28
2 4 5 10
2 5 7 15
2 8 1 5
2 9 2 7
2 10 15 24
3 4 9 10
3 5 11 17
3 8 21 27
3 10 1 10
4 5 12 21
4 6 13 22
4 7 14 23
4 9 4 14
5 6 3 30
5 7 11 26
5 9 17 28
6 8 9 18
6 10 2 6
7 9 10 20
7 10 7 14
8 9 1 30
9 10 2 10

Given -h 1 -a 3 -s 7
We terminate after 49s. The routing tables are as follows.

Router 0:
Routing Talbe at Time 49
Destination Path Cost
0 0 0
1 0-1 14
2 0-8-2 7
3 0-8-2-9-10-3 22
4 0-8-2-4 15
5 0-8-2-5 17
6 0-6 17
7 0-8-2-9-7 22
8 0-8 3
9 0-8-2-9 11
10 0-8-2-9-10 20

Router 1:
Routing Talbe at Time 49
Destination Path Cost
0 1-0 11
1 1 0
2 1-4-2 9
3 1-4-3 11
4 1-4 1
5 1-4-2-5 19
6 1-4-6 18
7 1-4-9-7 17
8 1-4-2-8 13
9 1-4-9 6
10 1-4-3-10 13

Router 2:
Routing Talbe at Time 49
Destination Path Cost
0 2-8-0 11
1 2-4-1 10
2 2 0
3 2-4-3 17

4 2-4 7
5 2-5 8
6 2-8-6 21
7 2-9-7 18
8 2-8 3
9 2-9 7
10 2-9-10 16

Router 3:
Routing Talbe at Time 49
Destination Path Cost
0 3-10-6-0 22
1 3-4-1 12
2 3-10-9-2 15
3 3 0
4 3-4 9
5 3-5 15
6 3-10-6 7
7 3-10-7 9
8 3-10-9-2-8 19
9 3-10-9 11
10 3-10 1

Router 4:
Routing Talbe at Time 49
Destination Path Cost
0 4-0 18
1 4-1 15
2 4-2 8
3 4-3 9
4 4 0
5 4-2-5 18
6 4-6 17
7 4-9-7 15
8 4-2-8 12
9 4-9 4
10 4-3-10 11

Router 5:
Routing Talbe at Time 49

Destination	Path	Cost
0	5-1-0	15
1	5-1	3
2	5-2	13
3	5-3	11
4	5-1-4	6
5	5	0
6	5-3-10-6	19
7	5-7	18
8	5-2-8	17
9	5-1-4-9	11
10	5-3-10	13

Router 6:
Routing Talbe at Time 49

Destination	Path	Cost
0	6-0	17
1	6-10-3-4-1	18
2	6-10-9-2	17
3	6-10-3	5
4	6-10-3-4	15
5	6-10-3-5	16
6	6	0
7	6-10-7	11
8	6-8	15
9	6-10-9	13
10	6-10	3

Router 7:
Routing Talbe at Time 49

Destination	Path	Cost
0	7-1-0	23
1	7-1	11
2	7-9-2	18
3	7-10-3	11

4 7-1-4 14
5 7-5 18
6 7-10-6 15
7 7 0
8 7-9-2-8 22
9 7-9 14
10 7-10 9

Router 8:
Routing Talbe at Time 49
Destination Path Cost
0 8-0 6
1 8-2-4-1 14
2 8-2 3
3 8-9-10-3 17
4 8-2-4 11
5 8-2-5 13
6 8-6 9
7 8-9-7 17
8 8 0
9 8-9 6
10 8-9-10 15

Router 9:
Routing Talbe at Time 49
Destination Path Cost
0 9-8-0 12
1 9-4-1 9
2 9-2 6
3 9-10-3 6
4 9-4 6
5 9-2-5 16
6 9-10-6 10
7 9-7 10
8 9-8 4
9 9 0
10 9-10 4

Router 10:
Routing Talbe at Time 49

Destination	Path	Cost
0	10-9-0	18
1	10-9-4-1	12
2	10-9-2	8
3	10-3	9
4	10-9-4	9
5	10-9-2-5	18
6	10-6	5
7	10-7	12
8	10-9-2-8	12
9	10-9	4
10	10	0

Input 2:

```
8 20
0 1 5 10
0 2 5 10
0 4 5 10
0 7 5 10
1 3 5 10
1 5 5 10
1 6 5 10
2 3 5 10
2 5 5 10
2 6 5 10
2 7 5 10
3 4 5 10
3 5 5 10
3 7 5 10
4 5 5 10
4 6 5 10
4 7 5 10
5 6 5 10
5 7 5 10
6 7 5 10
```

Given -h 1 -a 3 -s 7
It will terminate after 49 seconds. The routing tables are as follows

Router 0:
Routing Talbe at Time 49

Destination	Path	Cost
0	0	0
1	0-1	9
2	0-2	6
3	0-2-3	11
4	0-4	7
5	0-4-5	12
6	0-2-6	13
7	0-7	10

Router 1:
Routing Talbe at Time 49

Destination	Path	Cost
0	1-0	5
1	1	0
2	1-3-2	11
3	1-3	6
4	1-6-4	12
5	1-5	10
6	1-6	5
7	1-0-7	10

Router 2:
Routing Talbe at Time 49

Destination	Path	Cost
0	2-0	8
1	2-6-1	13
2	2	0
3	2-3	7
4	2-5-4	13
5	2-5	8
6	2-6	8
7	2-7	5

Router 3:
Routing Talbe at Time 49

Destination	Path	Cost
0	3-7-0	14
1	3-1	9
2	3-2	7
3	3	0
4	3-4	10
5	3-5	8
6	3-2-6	14
7	3-7	9

Router 4:
Routing Talbe at Time 49

Destination	Path	Cost
0	4-0	7
1	4-5-1	12
2	4-3-2	12
3	4-3	7
4	4	0
5	4-5	5
6	4-6	7
7	4-7	10

Router 5:
Routing Talbe at Time 49

Destination	Path	Cost
0	5-7-0	12
1	5-1	8
2	5-2	8
3	5-3	5
4	5-4	9
5	5	0
6	5-6	8
7	5-7	7

Router 6:
Routing Talbe at Time 49

Destination	Path	Cost
0	6-7-0	13
1	6-1	7
2	6-2	7
3	6-2-3	12
4	6-4	10
5	6-5	10
6	6	0
7	6-7	8

Router 7:
Routing Talbe at Time 49

Destination	Path	Cost
0	7-0	6
1	7-5-1	14
2	7-2	8
3	7-3	9
4	7-4	8
5	7-5	7
6	7-6	10
7	7	0