**CS 43118 & CS 53118 ST: Graph and Social Network Analysis**

**Homework 3 (100 points)**

**Instructor:** Niranjan Rai

**Due Date:** Please refer to the course website

1. What are the different areas of application of social network analysis? Mention at least 5 areas with one application in each area. (20 points)
2. What are the different levels of social network analysis? What is the difference between them? (20 points)
3. Why do we need a different level of social network analysis? (20 points)
4. What is a clique? What are the advantages and disadvantages of a clique? (20 points)
5. What is the difference between K-plex and K-core? (20 points)