

Q4 As networks get larger and larger, the maximum clique gets larger and larger. Argue whether this should be true or false.

False.

A clique is set of nodes which are completely connected. As nodes are added, with edge being added to the nodes with most neighbors (power law) - it does not form cliques. So the maximum clique size, though not decreases, will not increase asymptotically.

Key idea is that there is not a proportional increase.

Q7 A k-core with $k=1$ is otherwise known as:

Connected component

*If the term, is missing - the answer is not provided points. The term is what is being asked for. 1-core or *-plex is not the right answer.*

Q9 In an undirected network, a clique involving k-nodes can be converted into a (k-1)-core by removing _____ edges.

0

Since each node in k-1 core should have link to k-1 other nodes.

Q10 Give at least 5 examples of features that can be used to construct a cascade predictor (i.e., an algorithm that aims to predict how big a cascade will grow).

1. Content features
2. Original poster feature
3. Resharer features
4. Structural features of the cascade
5. Temporal features