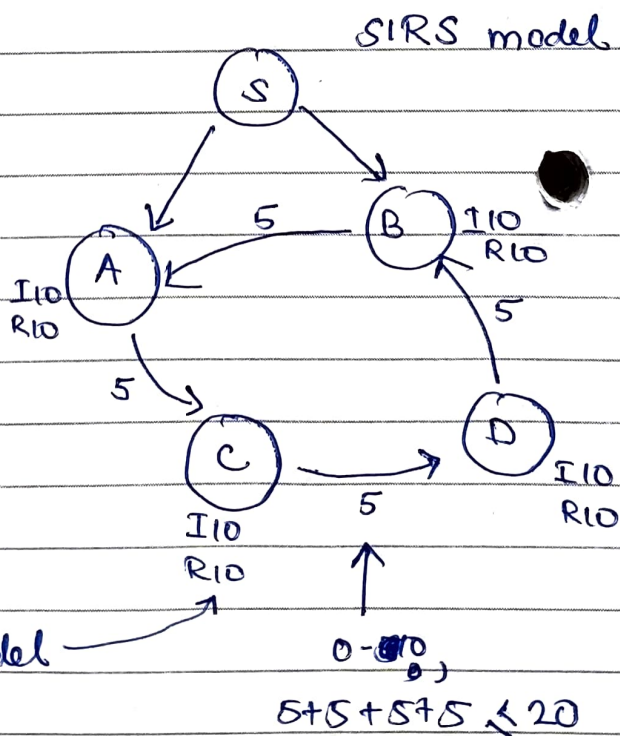
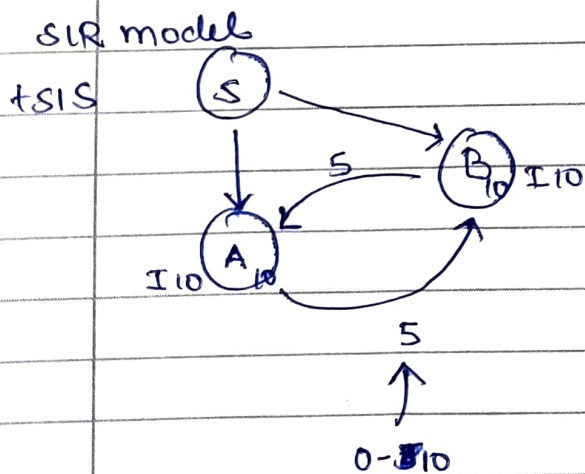


19.11.2020

1. SIR model as shortest path in a graph
2. Scaled SIR model
3. min-cut? min-spanning tree
3. SIS, SEIR, SEIRS, SIRR models.
4. JavaScript, Java, C++ implementation.

SIMILAR PAPERS

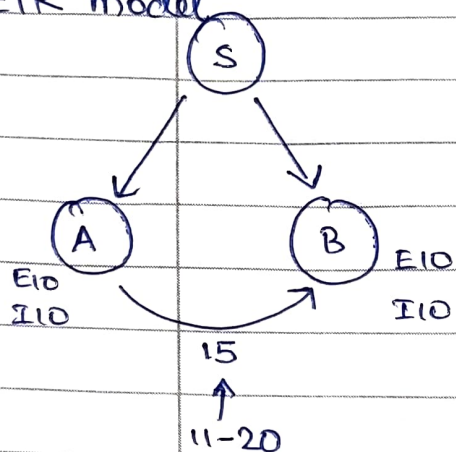
- ① simulating SIR processes on networks using weighted shortest paths.
- ② information source detection in the SIR model, a sample path-based approach.
- ③ path based epidemic spreading in networks.



SIRDS model
 $R = \infty$

$0 - 10, 0, 0, 0$
 $5 + 5 + 5 + 5 \leq 20$

SEIR model

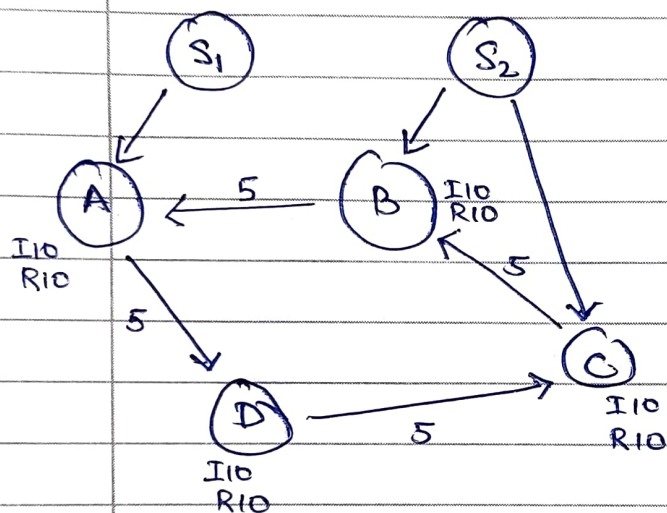


Graph edges can be sorted in:

- from, to order (child)
- to, from order (parent)

boost graph library (BGL)

multiple infected (sources)?



MST =

fastest way to infect all people

Max ST =

slowest way to infect all people?
(herd immunity?)

Objective:

(prioritize high risk people)

• minimize no. of people in infectable graph.

• maximize weight of infectable graph
(hospital load reduced)

but I_{10} , R_{10} , S (infection time) is random variable, not deterministic.