



Announcements

About the Course

Ask a Question

Progress Mentor

NPTEL » Social Networks

Unit 12 - Week 10

| Course outline | Assignment 10 | |
|---|---|---|
| low does an NPTEL online ourse work? | The due date for submitting this assignment has passed. As per our records you have not submitted this assignment. | Due on 2020-04-08, 23:59 IST. |
| /eek 0 | Suppose the basic reproductive number is estimated to be Ř0 = 1.5 with standard error s.e. (Ř0) = 0.1. | . If a vaccine giving 100% immunity is 1 poin |
| /eek 1 | available next time and a fraction v = 0.2 of randomly selected individuals were vaccinated, an estimate | |
| /eek 2 | number would be 0.9 | |
| /eek 3 | O 1.1 | |
| | O 1.2 | |
| /eek 4 | O 1.5 No, the answer is incorrect. | |
| leek 5 | Score: 0 Accepted Answers: | |
| /eek 6 | 1.2 | |
| eek 7 | In the modeling of mitochondrial eve using Wright-Fischer model, | 1 point |
| /eek 8 | Population size can be anything in any generation. Population size doubles every generation. | |
| /eek 9 | O Population size remains the same in every generation. | |
| /eek 10 | O Population size halves every generation. | |
| Lecture 126 - Rich Get Richer | No, the answer is incorrect. Score: 0 | |
| - A Possible Reason | Accepted Answers: Population size remains the same in every generation. | |
| Lecture 127 - Rich Get Richer - The Long Tail Lecture 128 - Epidemics- An Introduction | 3) Suppose that a person carrying a new disease enters a population, and transmits it to each person he reference for the result of the population of the | |
| Lecture 129 - Introduction to | O 1000^0.45 | |
| epidemics (contd) | ○ 450 ○ 1000 | |
| Decture 130 - Simple Branching Process for | ○ 1000 ○ 45 | |
| Modeling Epidemics | No, the answer is incorrect. Score: 0 | |
| Decture 131 - Simple Branching Process for Modeling Epidemics (contd) | Accepted Answers: 450 | |
| Lecture 132- Basic reproductive number | Consider a disease 'X'. People who are diagnosed in the earlier stage have a high chance of recovery. Edeath. | But the intense infection of 'X' will lead to 1 point |
| Lecture 133- Modeling | The recovered people also stand a chance to get infected again. What kind of model does this disease | 'X' exhibit? |
| epidemics on complex networks | ○ SIS ○ SIR | |
| Lecture 134 - SIR and SIS spreading models | O Both SIS and SIR | |
| Lecture 135 - Comparison | O Neither SIS nor SIR | |
| between SIR and SIS spreading models | No, the answer is incorrect. Score: 0 Accepted Answers: SIS | |
| Reproductive Number Revisited for Complex Networks | 5) Choose the correct statement from the following. | 1 point |
| Lecture 137 - Percolation | Both SIR and SIS models can run for an infinite number of steps on a network. | |
| model | Both SIR and SIS model should come to an end after running for a finite number of steps on a network SIS model should come to an end after running for a finite number of steps on a network, while SIR models | |
| Lecture 138 - Analysis of basic reproductive number in | SIR model should come to an end after running for a finite number of steps on a network, while SIS models. | odel can keep running indefinitely on a network. |
| branching model (The problem statement) | No, the answer is incorrect. Score: 0 | |
| Lecture 139 - Analyzing basic | Accepted Answers: SIR model should come to an end after running for a finite number of steps on a network, while SIS model | |
| reproductive number 2 Lecture 140 - Analyzing basic | can keep running indefinitely on a network. | |
| reproductive number (3) | 6) In a tree network (as shown in the following Figure), given that the probability of infection across every exhat will be the expected number of secondary infections produced from an infected person?: | edge is p and every node has k children, 1 point |
| Lecture 141 - Analyzing basic reproductive number (4) | | |
| Lecture 142 - Analyzing basic | \sim | |
| reproductive number (5) | | |
| Quiz : Assignment 10 Week 10 Feedback | | |
| /eek 11 | O · · · friends · · · · O | |
| | | |
| /eek 12 | Contriends Contriends Contriends Contriends | |
| ssignment Solutions | KKK KKKKKK | 1 |
| ownload Videos | / \ | ` |
| | O p^2 | |
| | ○ log(k) ○ p × k | |
| | ○ p^k | |
| | No, the answer is incorrect. Score: 0 | |
| | Accepted Answers: $\rho \times k$ | |
| | For a contagion to ultimately die away from a population, the basic reproductive number (R_0) should b | pe: 1 point |
| | R_0 > 1 | · pont |

O R_0 = 1

OR_0 < 1

None of the above

Accepted Answers: R_0 < 1

No, the answer is incorrect. Score: 0