Unit 4 - Week 2

Course outline

How does an NPTEL online course work?

Week 0

Week 1

Week 2

- ● Lecture 14 - Introduction to Datasets
- ○ Lecture 15 - Ingredients Network
- ● Lecture 16 - Synonymy Network
- ○ Lecture 17 - Web Graph
- ○ Lecture 18 - Social Network Datasets
- ○ Lecture 19 - Datasets: Different Formats
- ○ Lecture 20 - Datasets: How to Download?
- ○ Lecture 21 - Datasets: Analysing Using Networkx
- ○ Lecture 22 - Datasets: Analysing Using Gephi
- ○ Lecture 23 - Introduction : Emergence of Connectedness
- ○ Lecture 24 - Advanced Material : Emergence of Connectedness
- ○ Lecture 25 -Programming Illustration : Emergence of Connectedness
- ○ Lecture 26 - Summary to Datasets
- ○ **Quiz : Assignment 2**
- ○ Week 2 Feedback

Week 3

Week 4

Week 5

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Week 11

Week 12

Assignment Solutions

Download Videos

Assignment 2

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Due on 2020-02-12, 23:59 IST.

1) In the synonymy network of English language, we can traverse from the word 'LOVE' to 'HATE'. What can we say regarding the *relation* of synonymy over English words?   **1 point**

- ○ It is Reflexive only.
- ○ It is equivalence.
- ○ It is symmetric as well as reflexive.
- ○ It is POSET.

No, the answer is incorrect.
Score: 0
Accepted Answers:
It is symmetric as well as reflexive.

2) Which of the following is the most correct with respect to a social network graph? (Choose the best one):   **1 point**

- ○ It is always a complete graph
- ○ It is always a connected graph
- ○ It is most probably a connected graph
- ○ It is most probably a disconnected graph

No, the answer is incorrect.
Score: 0
Accepted Answers:
It is most probably a connected graph

3) What is the density of the given graph?   **1 point**

- ○ 13/36
- ○ 13/45
- ○ 36/13
- ○ 45/13

No, the answer is incorrect.
Score: 0
Accepted Answers:
13/36

4) Choose the one that is False out of the following: **1 point**

- ○ GML stands for Graph Modeling Language.
- ○ GML stores the data in the form of tags just like XML.
- ○ GML and GraphML are different formats.
- ○ Both GML and GraphML can store details of attributes of nodes and edges.

No, the answer is incorrect.
Score: 0
Accepted Answers:
GML stores the data in the form of tags just like XML.

5) Which of the following formats was created as a part of Gephi project?   **1 point**

- ○ GML
- ○ GEXF
- ○ GraphML
- ○ Pajek

No, the answer is incorrect.
Score: 0
Accepted Answers:
GEXF

6) Gephi is used for? (Choose the best option):   **1 point**

- ○ The analysis of networks
- ○ The visualization of networks
- ○ The analysis as well as visualization of networks
- ○ For merging of network data sets.

No, the answer is incorrect.
Score: 0
Accepted Answers:
The analysis as well visualization of networks

7) Which of the following is not used as an extension for a network data set?   **1 point**

- ○ .net
- ○ .txt
- ○ .nitf
- ○ .gdf

No, the answer is incorrect.
Score: 0
Accepted Answers:
.nitf

8) Which of the following network formats is the most unsuitable for adding attributes for edges?   **1 point**

- ○ GEXF format
- ○ GML format
- ○ Pajek Format
- ○ Adjlist format

No, the answer is incorrect.
Score: 0
Accepted Answers:
Adjlist format

9) The average clustering coefficient of a complete graph with 100 nodes will be?   **1 point**

- ○ 0
- ○ 1
- ○ 100
- ○ 0.01

No, the answer is incorrect.
Score: 0
Accepted Answers:
1

10) The degree distribution of most real-world networks follows which law?   **1 point**

- ○ Zipf's Law
- ○ Benford's Law
- ○ Power Law
- ○ Difficult to say; can follow any distribution

No, the answer is incorrect.
Score: 0
Accepted Answers:
Power Law