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Unit 14 - Week 12

Course outline

How does an NPTEL online course work?

Week 0

Week 1

Week 2

Week 3

week 4

Week 5

Week 6

Week 7

Week 8

Week 9

Week 10

Week 11

Week 12

Assignment 12

The due date for submitting this assignment has passed. Due on 2020-04-22, 23:59 IST.

Assignment submitted on 2020-04-22, 19:42 IST

1) In web graph, on which we perform Google page ranking

1 point

- ☒ Web pages are the nodes and hyperlinks are the edges
- ☐ Hyperlinks are the nodes and web pages are the edges
- ☐ Both hyperlinks and web pages are nodes
- ☐ Both hyperlinks and web pages are edges

Yes, the answer is correct.

Score: 1

Accepted Answers:

Web pages are the nodes and hyperlinks are the edges

2) In pagerank algorithm on a directed network, we randomly move from a node A to

1 point

- ☐ a random node which is pointing to A
- ☒ a random node which A is pointing to
- ☐ a random node out of all the nodes which are either pointing to A or the nodes which A is pointing to
- ☐ none of the above

Yes, the answer is correct.

Score: 1

Accepted Answers:

a random node which A is pointing to

3) Which of the following statements is FALSE?

1 point

- ☐ Barbell graph is connected
- ☒ In both complete graph and cycle graph, every node has the same degree

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Part 01 (unit?
unit=218&lesson=219)

- ☐ In any star graph having more than 2 nodes, there are at least 2 nodes having the same degree
- ☐ All the above statements are true

No, the answer is incorrect.

Score: 0

Accepted Answers:

All the above statements are true

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unit=218&lesson=220)

4) Which of the following statements choose a random node from a graph G?

1 point

- ☐ random.choice(G)
- ☐ random.node(G.nodes())
- ☒ random.choice(G.nodes())
- ☐ none of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

none of the above

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unit=218&lesson=221)

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Part 04 (unit?
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5) The function networkx.pagerank(G) returns

1 point

- ☐ a list
- ☐ a set
- ☒ a dictionary
- ☐ a numpy array

Yes, the answer is correct.

Score: 1

Accepted Answers:

a dictionary

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Part 05 (unit?
unit=218&lesson=223)

● Page Rank -
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Part 06 (unit?
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6) Choose one network from following which is not directed.

1 point

- ☐ citation network
- ☐ Follower-followee network of Twitter
- ☐ Supply chain network
- ☒ Friendship network of Facebook

Yes, the answer is correct.

Score: 1

Accepted Answers:

Friendship network of Facebook

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unit=218&lesson=225)

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Part 08 (unit?
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7) Which of the following functions is used to make a directed graph?

1 point

- ☒ networkx.DiGraph
- ☐ networkx.digraph
- ☐ networkx.Digraph
- ☐ networkx.diGraph

Yes, the answer is correct.

Score: 1

Accepted Answers:

networkx.DiGraph

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● Page Rank -
How does
Google Work ? -
Part 10 (unit?
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8) The output of G.out_edges(nodename) is

1 point

- ☐ List of lists
- ☐ List of dictionaries
- ☐ List of vertices

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● Page Rank -
How does
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Part 12 (unit?
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● Page Rank -
How does
Google Work ? -
Part 13 (unit?
unit=218&lesson=231)

● Page Rank -
How does
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Part 14 (unit?
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● Page Rank -
How does
Google Work ? -
Part 15 (unit?
unit=218&lesson=233)

● Page Rank -
How does
Google Work ? -
Part 16 (unit?
unit=218&lesson=234)

● Collatz
Conjecture -
Part 01 (unit?
unit=218&lesson=235)

● Collatz
Conjecture -
Part 02 (unit?
unit=218&lesson=236)

○ JOC Conclusion
(unit?
unit=218&lesson=237)

● **Quiz :**
Assignment 12
(assessment?
name=288)

● Programming
Assignments-1:
Sentence
(/noc20_cs35/progassignment?
name=323)

● Programming
Assignment-2:
Letters
(/noc20_cs35/progassignment?
name=324)

● Programming
Assignment-3:
Email ID
(/noc20_cs35/progassignment?
name=325)

○ List of tuples

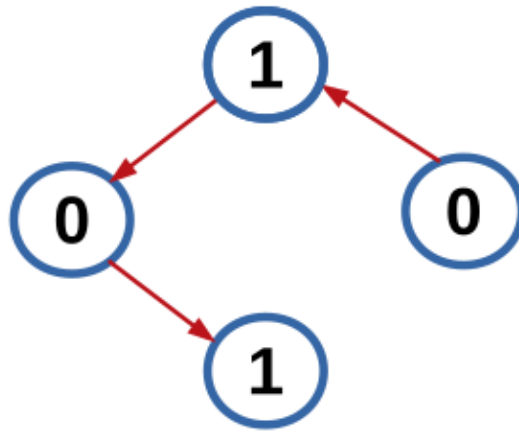
Yes, the answer is correct.

Score: 1

Accepted Answers:

List of tuples

9) What happens when a gold coin distribution game is played on the following network? **1 point**



- One node ends up having all coins and the game stops
- ☒ The game stops after some iterations but one node does not end up having all the coins
- The game enters an infinite loop
- None of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

One node ends up having all coins and the game stops

10) The number of gold coins in the gold coin distribution game **1 point**

- ☒ keeps increasing in every subsequent iteration
- keeps decreasing in every subsequent iteration
- keeps varying randomly in every subsequent iteration
- remains constant

No, the answer is incorrect.

Score: 0

Accepted Answers:

remains constant

☐ Week 12
Feedback (unit?
unit=218&lesson=326)

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