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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

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, 23:20 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:

Week 11**Week 12**

- ☐ Page Rank - How does Google Work ? - Part 01 (unit? unit=218&lesson=219)
- ☐ Page Rank - How does Google Work ? - Part 02 (unit? unit=218&lesson=220)
- ☐ Page Rank - How does Google Work ? - Part 03 (unit? unit=218&lesson=221)
- ☐ Page Rank - How does Google Work ? - Part 04 (unit? unit=218&lesson=222)
- ☐ Page Rank - How does Google Work ? - Part 05 (unit? unit=218&lesson=223)
- ☐ Page Rank - How does Google Work ? - Part 06 (unit? unit=218&lesson=224)
- ☐ Page Rank - How does Google Work ? - Part 07 (unit? unit=218&lesson=225)
- ☐ Page Rank - How does Google Work ? - Part 08 (unit? unit=218&lesson=226)
- ☐ Page Rank - How does Google Work ? - Part 09 (unit? unit=218&lesson=227)
- ☐ Page Rank - How does Google Work ?

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
- ☐ 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

Yes, the answer is correct.

Score: 1

Accepted Answers:

All the above statements are true

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

Yes, the answer is correct.

Score: 1

Accepted Answers:

none of the above

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

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

No, the answer is incorrect.

Score: 0

Accepted Answers:

Friendship network of Facebook

7) Which of the following functions is used to make a directed graph?

1 point

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

- Part 10 (unit?
unit=218&lesson=228)

☐ Page Rank -
How does
Google Work ?
- Part 11 (unit?
unit=218&lesson=229)

☐ Page Rank -
How does
Google Work ?
- Part 12 (unit?
unit=218&lesson=230)

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

☐ Page Rank -
How does
Google Work ?
- Part 14 (unit?
unit=218&lesson=232)

☐ 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

Yes, the answer is correct.

Score: 1

Accepted Answers:

networkx.DiGraph

8) The output of G.out_edges(nodename) is

- ☐ List of lists
- ☐ List of dictionaries
- ☐ List of vertices
- ☒ List of tuples

Yes, the answer is correct.

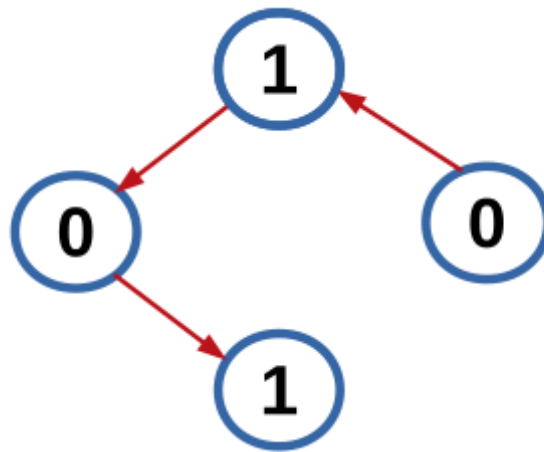
Score: 1

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

Yes, the answer is correct.

Score: 1

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

(/noc20_cs35/progassignment?
name=323)

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

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

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

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