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([https://swayam.gov.in/nc\\_details/NPTEL](https://swayam.gov.in/nc_details/NPTEL))

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NPTEL (<https://swayam.gov.in/explorer?ncCode=NPTEL>) » The Joy of Computing using Python (course)



## 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 ()

● Page Rank - How does Google Work ? -

# Week 12 : Assignment 12

The due date for submitting this assignment has passed.

Due on 2023-04-19, 23:59 IST.

Assignment submitted on 2023-04-15, 22:54 IST

1) NLTK \_\_\_\_\_.

1 point

- ☒ Helps to work with human language data.
- ☐ Helps to convert machine data into human language.
- ☐ Helps to work on gibberish language.
- ☐ Helps to translate dog language into human language

Yes, the answer is correct.

Score: 1

Accepted Answers:

*Helps to work with human language data.*

2) The following code will return:

1 point

```
def test(word):
    new_word = ''
    for ch in word:
        if ch>='a' and ch<='z':
            temp = ord(ch)
            temp = temp - 32
            temp = chr(temp)
            new_word = new_word + temp
    return new_word
```

- ☒ Converting lower case letters into upper case.
- ☐ Converting upper case letters into lower case.
- ☐ Return the same word

Part 01 (unit?  
unit=245&lesso  
n=246)

Page Rank -  
How does  
Google Work ? -  
Part 02 (unit?  
unit=245&lesso  
n=247)

Page Rank -  
How does  
Google Work ? -  
Part 03 (unit?  
unit=245&lesso  
n=248)

Page Rank -  
How does  
Google Work ? -  
Part 04 (unit?  
unit=245&lesso  
n=249)

Page Rank -  
How does  
Google Work ? -  
Part 05 (unit?  
unit=245&lesso  
n=250)

Page Rank -  
How does  
Google Work ? -  
Part 06 (unit?  
unit=245&lesso  
n=251)

Page Rank -  
How does  
Google Work ? -  
Part 07 (unit?  
unit=245&lesso  
n=252)

Page Rank -  
How does  
Google Work ? -  
Part 08 (unit?  
unit=245&lesso  
n=253)

Page Rank -  
How does  
Google Work ? -  
Part 09 (unit?  
unit=245&lesso  
n=254)

Page Rank -  
How does  
Google Work ? -  
Part 10 (unit?  
unit=245&lesso  
n=255)

☐ Error

Yes, the answer is correct.

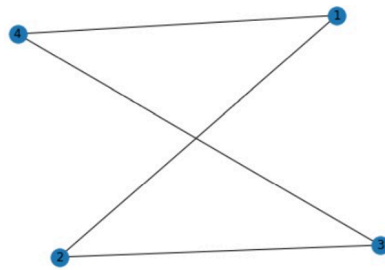
Score: 1

Accepted Answers:

*Converting lower case letters into upper case.*

3) How many edges are there in the following graph?

1 point



☐ Three

☐ Five

☒ Four

☐ Two

Yes, the answer is correct.

Score: 1

Accepted Answers:

*Four*

4) A complete graph will have a degree of separation.

1 point

☐ 2

☒ 1

☐ 3

☐ Depends on the number of nodes.

Yes, the answer is correct.

Score: 1

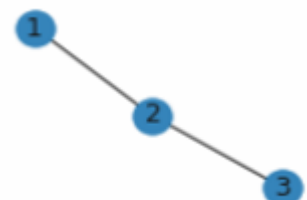
Accepted Answers:

*1*

5) What is the output of the following code?

1 point

```
1 import networkx as nx
2 import matplotlib.pyplot as plt
3
4
5 G = nx.Graph()
6 G.add_nodes_from([1, 2, 3, 4])
7 G.add_edges_from([(1, 2), (2, 1), (2, 3), (3, 4), (4, 1), (3, 1)])
8
9 nx.draw(G, with_labels=True)
10 plt.show()
```



Page Rank -  
How does  
Google Work ? -  
Part 11 (unit?  
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n=256)

Page Rank -  
How does  
Google Work ? -  
Part 12 (unit?  
unit=245&lesso  
n=257)

Page Rank -  
How does  
Google Work ? -  
Part 13 (unit?  
unit=245&lesso  
n=258)

Page Rank -  
How does  
Google Work ? -  
Part 14 (unit?  
unit=245&lesso  
n=259)

Page Rank -  
How does  
Google Work ? -  
Part 15 (unit?  
unit=245&lesso  
n=260)

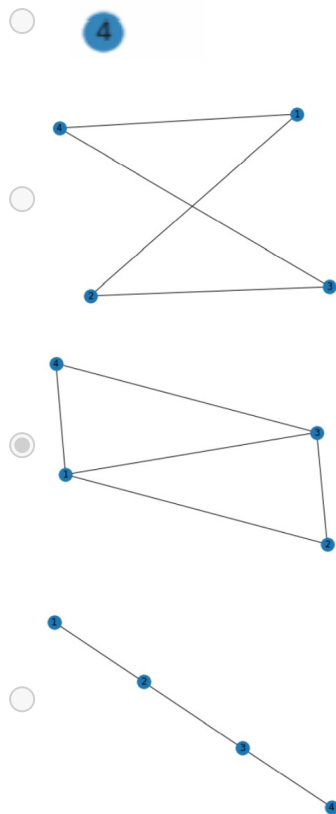
Page Rank -  
How does  
Google Work ? -  
Part 16 (unit?  
unit=245&lesso  
n=261)

Collatz  
Conjecture -  
Part 01 (unit?  
unit=245&lesso  
n=262)

Collatz  
Conjecture -  
Part 02 (unit?  
unit=245&lesso  
n=263)

JOC Conclusion  
(unit?  
unit=245&lesso  
n=264)

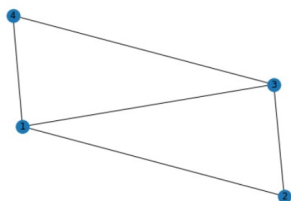
Week 12  
Feedback  
Form: The Joy  
of Computing  
using Python  
(unit?



Yes, the answer is correct.

Score: 1

Accepted Answers:



6) What is the shape of the following numpy array?  
`numpy.array([ [1,2,3], [4,5,6] ])`

1 point

- ☒ (2,3)  
☐ (3,2)  
☐ (3,3)  
☐ (2,2)

Yes, the answer is correct.

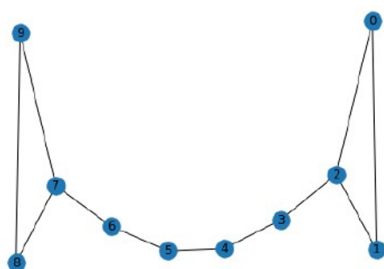
Score: 1

Accepted Answers:

(2,3)

7) Which is the following graph?

1 point



- ☐ Triangle Graph  
☐ Directed Graph

unit=245&less  
n=265)

● **Quiz: Week 12  
: Assignment  
12  
(assessment?  
name=335)**

● Week 12:  
Programming  
Assignment 1  
(/noc23\_cs20/pr  
ogassignment?  
name=336)

● Week 12:  
Programming  
Assignment 2  
(/noc23\_cs20/pr  
ogassignment?  
name=337)

● Week 12:  
Programming  
Assignment 3  
(/noc23\_cs20/pr  
ogassignment?  
name=338)

**Text  
Transcripts ()**

**Download  
Videos ()**

**Books ()**

**Live Session  
()**

**Problem  
Solving  
Session ()**

- ☒ Barbell Graph  
☐ Wheel graph

Yes, the answer is correct.

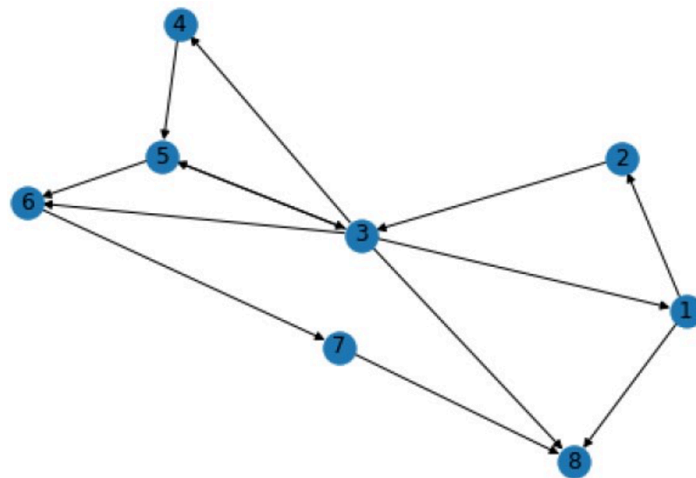
Score: 1

Accepted Answers:

*Barbell Graph*

8) What will be the  $G.out\_degree(3)$  for the following graph(G)?

**1 point**



- ☐ 4  
☐ 6  
☐ 3  
☒ None of the above

Yes, the answer is correct.

Score: 1

Accepted Answers:

*None of the above*

9) What should we do when encountered a sink?

**1 point**

- ☐ Stop the algorithm.  
☐ Start with the last node.  
☒ Randomly choose a node from all nodes.  
☐ Randomly choose a node from neighbor nodes.

Yes, the answer is correct.

Score: 1

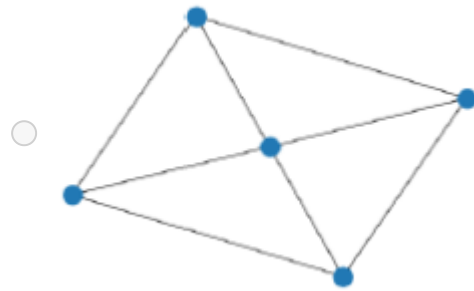
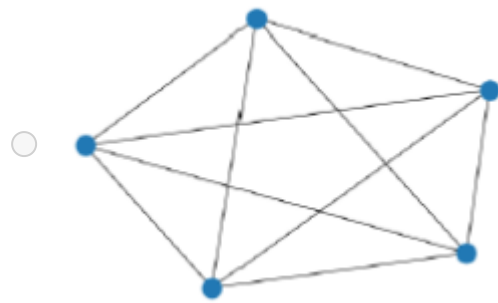
Accepted Answers:

*Randomly choose a node from all nodes.*

10) Which of the following is a star graph of node 5?

**1 point**





Yes, the answer is correct.

Score: 1

Accepted Answers:

