Course outline

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Week 2

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Week 8

Lecture 37 : Lexical

Lecture 38 : Lexical

Semantics - Wordnet

Lecture 39 : Word Sense

Lecture 40 : Word Sense

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Quiz : Assignment 8

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Unit 10 - Week 8

**Assignment 8** How to access the portal The due date for submitting this assignment has passed. As per our records you have not submitted this assignment. ○ a. ○ b. ○ c. Od. No, the answer is incorrect. Accepted Answers: For the following given sentences pairs, identify the various lexical relations existing between the common word 1a. Government has issued tender for 2MW Solar Project. 1b. The vegetable was well cooked and tender. 2a. The university is organising a coding competition. 2b. She is studying in university. a. 1a-1b: Polysemy, 2a-2b: Homonymy b. 1a-1b: Synonymy, 2a-2b: Polysemy c. 1a-1b: Holonymy, 2a-2b: Synonymy d. 1a-1b: Homonymy, 2a-2b: Polysemy ( a. ○ b. d. No, the answer is incorrect. Score: 0 Accepted Answers: 3) What are the key heuristics of the Yarowsky algorithm? a. multiple sense per collocation, one sense per discourse b. one sense per collocation, one sense per discourse c. one sense per collocation, multiple sense per discourse d. multiple sense per collocation, multiple sense per discourse ○ a. ○ b. ○ d. No, the answer is incorrect. Score: 0 Accepted Answers: 4) Match the following with different metric names and expressions 1.  $-\log P(LCS(c_1,c_2))$ 2.  $\left(IC(c_1) + IC(c_2) - 2 \times IC(LCS(c_1, c_2))\right)^{-1}$ a. 1-i, 2-ii, 3-iv, 4-iii

to the second word (w2) i.e. w1 is a <lexical relation> of w2 A. Invention of the wheel is one of the landmarks in the history of mankind. B. Companies are trying to make driverless car. C. Golden daffodils are fluttering and dancing in the breeze. D. Keukenhof has unique flower park. 1. Holonym i.wheel-car ii. car-wheel 2. Hyponym iii. daffodils-flower 3. Meryonym 4. Hypernym iv. flower- daffodils a. 1-iii, 2-ii, 3-iv, 4-i b. 1-ii, 2-iii, 3-i, 4-iv c. 1-ii, 2-iii, 3-iv, 4-i d. 1-i, 2-ii, 3-iii, 4-iv

b. 1-iv, 2-i, 3-ii, 4-iii

c. 1-iv, 2-iii, 3-i, 4-ii

d. 1-iv, 2-i, 3-iii, 4-i

○ a.

○ b.

○ c. ⊕d.

Score: 0

5)

No, the answer is incorrect.

Accepted Answers:

i. Leacock-Chodorow similarity

iii. Jiang-Conrath distance

Article

(9.01) Ware

(9.34) Table Ware

(9.72) Cutlery

(10.05) Fork

ii. Lin similarity

iv. Resnik similarity

Object (2.79)

Artifact (3.53)

Instrumentality (4.91)

Conveyance (8.17)

Vehicle

Motor Vehicle

What is the Resnik similarity between "Bicycle" and "Fork"?

6) What is the Lin similarity between "Vehicle" and "Table Ware"?

7) What is the Jiang-Conrath distance between "Car" and "Article"?

Match the following with different algorithm and their techniques.

i. Bootstrapping

ii. Similar word cluster

iii. Overlap between context and glosses

iv. Bag-of-words features, and machine learning

content as shown in Figure 1.

a. 8.30

b. 4.91

c. 3.53

a. 0.198

b. 0.397

c. 0.716

a. 0.114

b. 0.193

c. 0.157

d. None of the above

d. None of the above

○ a. ○ b.

Od.

Score: 0

○ a. ○b.

○ c. ○ d.

Score: 0

○ a. ○ b.

○ c. ○ d.

○ a. ○ b.

○ c.  $\bigcirc$  d.

○ b.

Oc.  $\bigcirc$  d.

Score: 0

○ a. Ob.

Oc. ⊖d.

Score: 0

○ a. ○ b.

○ c. ○d.

Score: 0

( ) a. ○ b.

○ c. ○ d.

Score: 0

( a. ○ b.

Oc.

Score: 0

Oc. d.

Score: 0

No, the answer is incorrect.

Accepted Answers:

No, the answer is incorrect.

Accepted Answers:

No, the answer is incorrect.

Accepted Answers:

Content.

No, the answer is incorrect.

Accepted Answers:

Content.

a.

No, the answer is incorrect.

10's answer to the root?

a. 6,4

b. 6, 3

c. 7, 2

d. 5, 3

a. 0.56

b. 0.20

c. 0.72

a. 6.68

b. 4.02

c. 1.53

d. None of the above

genus Micropterus)

spiny-finned fishes

d. None of the above

Accepted Answers:

No, the answer is incorrect.

Accepted Answers:

No, the answer is incorrect.

No, the answer is incorrect.

No, the answer is incorrect.

1. HyperLex

2. Yarowsky

4. Lesk

No, the answer is incorrect.

Accepted Answers:

3. Supervised WSD

a. 1-iv, 2-ii, 3-i, 4-iii

b. 1-i, 2-ii, 3-iii, 4-iv

c. 1-ii, 2-i, 3-iv, 4-iii

d. 1-iv, 2-ii, 3-iii, 4-i

For question 9-14, use NLTK corpus reader WordNet.

2. communication by word of mouth

d. None of the above

4. the style of a piece of writing or speech.

5. the mental faculty or power of vocal communication

communication

a. 6

b. 5

c. 4

"teacher" as per wordnet?

a. Person

d. People

c. Professional

b. Body

Which of the following sense for the word "language" is not available in wordnet?

3. the cognitive processes involved in producing and understanding linguistic

10) Which of the following is the Lowest common hypernym for the pair of words "student" and

11) What is the length of the longest and the shortest hypernym path from the synset of Question

12) Find out what is the Lin similarity between the words 'tree' and 'plant'. Use Brown Information

13) Calculate the Resnik similarity between the words 'tree' and 'plant'. Use Brown Information

<sup>14)</sup> For the sentence "I had caught a bass yesterday", what is the definition of the sense of the

b. the lean flesh of a saltwater fish of the family Serranidae

a. any of various North American freshwater fish with lean flesh (especially of the

d. nontechnical name for any of numerous edible marine and freshwater

word "bass", as per the Lesk algorithm, when using senses from wordnet?

the lowest adult male singing voice

1. a systematic means of communicating by the use of sounds or conventional symbols

Accepted Answers:

Accepted Answers:

Accepted Answers:

d. None of the above

(9.53)

Car (10.57)

(8.30)

Wheeled Vehicle

Figure 1

For Question 5 to 7, consider a hypothetical wordnet noun taxonomy with their information

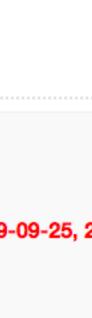
(9.86)

Cycle (10.35)

Bicycle (10.94)

Due on 2019-09-25, 23:59 IST. 1 point

Consider the following given sentences. Match the lexical relations between the first word (w1)





# Mentor