Question 1:

Consider the following sentences:

1. After a hectic day, she found **peace** in finishing the last **piece** of her puzzle.
2. He used a **bat** to hit the ball out of the park, then later that evening, he saw a **bat** flying in the night sky.

The lexical relation between the highlighted words in sentences 1, 2 are

a. Homograph, Synonym
b. Homonymy, Homophones
c. Synonym, Hyponym
d. Homophones, Homonymy

Option D) Homophones, homonymy

Question 2:

Consider the following sentences. Which of the following is/are False?

a. Fruit is a hypernym of mango.
b. Animal is hyponym of cat.
c. Homographs are the words with the same pronunciation but different spelling
d. Bank (financial organization) vs Bank (riverside) is an example of homonym

Hypernym: class(Fruit) and Object (Mango, Apples etc.) Fruit is a superclass/hypernym of mango, Vehicle is a superclass of Maruti suzuki, animal is a superclass of cat.
Mango is a kind of Fruit. Mango is a subclass/hyponym of Fruit, Maruti suzuki is a subclass of Vechile. , **Option B), Option C)**
Question 3:

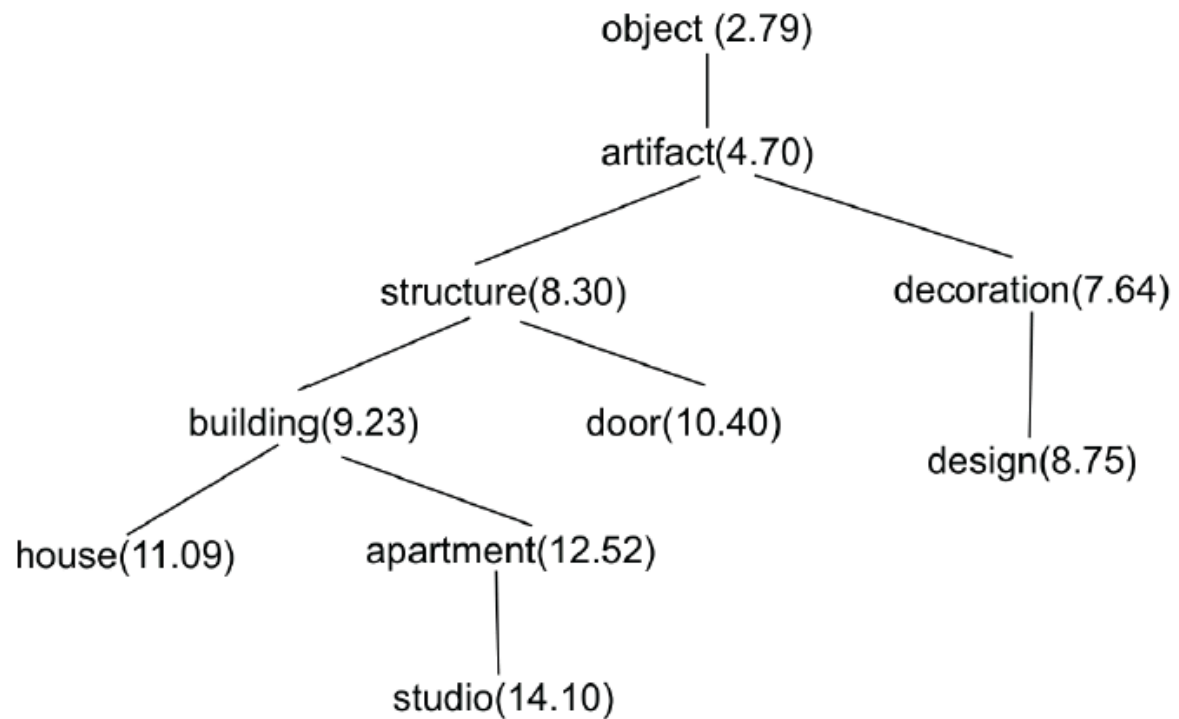Which of the following is /are True?

a. Synonymy is a binary relation
b. Thesaurus-based algorithms are based on whether words are nearby in Wordnet
c. Synset is a set of antonyms representing sense
d. Troponym is from a verb to a specific manner elaboration of that verb

Option a), b), d)

Question 4:

object (2.79)
|
artifact(4.70)

structure(8.30)   decoration(7.64)

building(9.23)   door(10.40)

                                    design(8.75)

house(11.09)   apartment(12.52)

studio(14.10)

What is the Lin similarity between **house** and **decoration**?

a. 0.564
b. 0.433
c. 0.501
d. 0.473

Option c) is the correct answer.

Question 5:

What is the Resnic similarity between **building** and **door**?

a. 11.09
b. 8.30
c. 9.23
d. 4.70

Building and door ⇒ closest common ancestor is "structure" ⇒ 8.3 Option b)

Question 6:
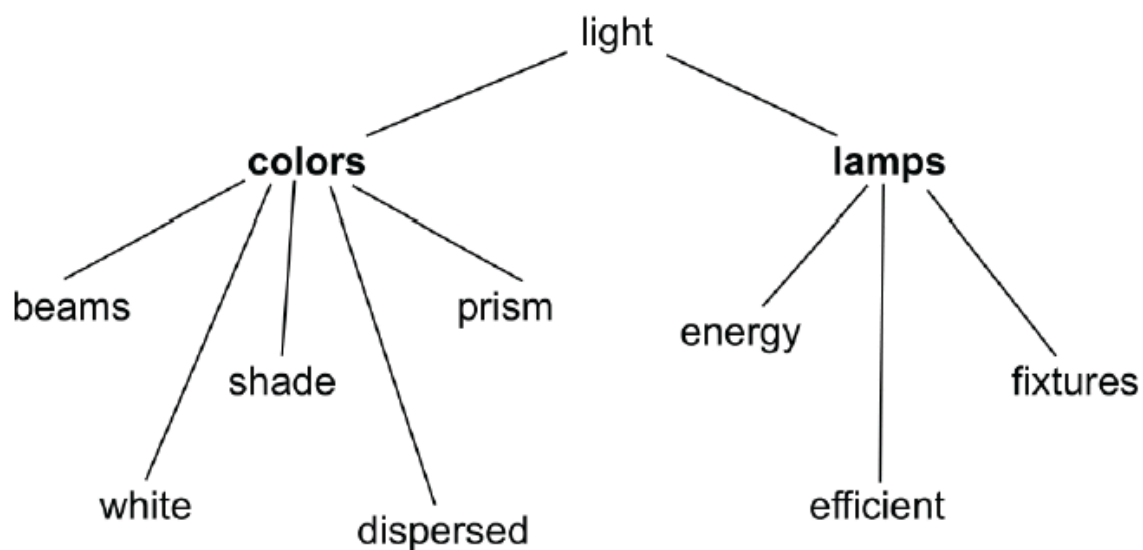
What is the Leacock–Chodorow similarity between **house** and **design**?

a. 0.694
b. 0.398
c. 0.097
d. None of the above

Option D) is correct: None of the above.
0.301

Question 7:

For Question 7 consider the network of words for disambiguation of the word "light" as shown in Figure 3. The hubs are "colors" and "lamps". Note: Take the distance between two words as the path length between them.

Compute the scores for (i) the hub "colors" and the component "white" and (ii) the hub "colors" and the component "fixtures".

    a. 0.2, 0.25

    b. 1.0, 0.0

    c. 0.5, 0.25

    d. None of the above

Option d) 0.5, 0

Question 8:

Which of the following is/are false?

a. Hyponym is also called superordinate
b. Hypernym is also called subordinate
c. Snore→ Sleep is an example of entails
d. Meal→ lunch is a example of hyponym

I WILL UPDATE IN THE PDF.

a), b),
Multichoice multicorrect

a) Hyponym is a subclass. Statement a) is false
b) Hypernym is a superclass. Statement b) is false
c) Snore → sleep
d) Lunch, dinner are type/sub-class of Meal. (statement d) is True)
    Entail relationship: **Meal → lunch**, does "lunch" follow from the premise "Meal"

    Class relationship:
    Hypothesis to premise

    Representation:
    Premise → Hypothesis

    A entails B

    Premise —-> Hypothesis, does hypothesis follow from premise.

A	B	A → B
0	0	1
0	1	1
1	0	0
1	1	1

<u>Whenever B is true (1), then only A can be true (1).</u>

When A is true and B is false $\Rightarrow$ entire A$\to$ B will become false.