2 points

1 point

0 points

2 points

1 point

NPTEL » Natural Language Processing

## Unit 7 - Week 5

## Course outline How to access the portal Week 0 : Assignment 0 Week 1 Week 2 Week 3 Week 4 Week 5 Lecture 22: Syntax -Introduction Lecture 23: Syntax - Parsing I Lecture 24: Syntax - CKY, **PCFGs** Lecture 25: PCFGs - Inside-Outside Probabilities Lecture 26: Inside-Outside Probabilities Week 5 - Lecture Materials Quiz : Assignment 5 Feedback for Week 5 Week 6 Week 7 Week 8 Week 9 Week 10 Week 11 Week 12 DOWNLOAD VIDEOS Solutions

1. 4.

S -> A B

S -> B C

A -> B A

VP -> Verb

VP -> Verb NP

PP -> Prep NP

1. 0.00031104

2. 0.000031104

3. 0.00062208

4. 0.000062208

VP -> VP PP

1. ○2.

3.

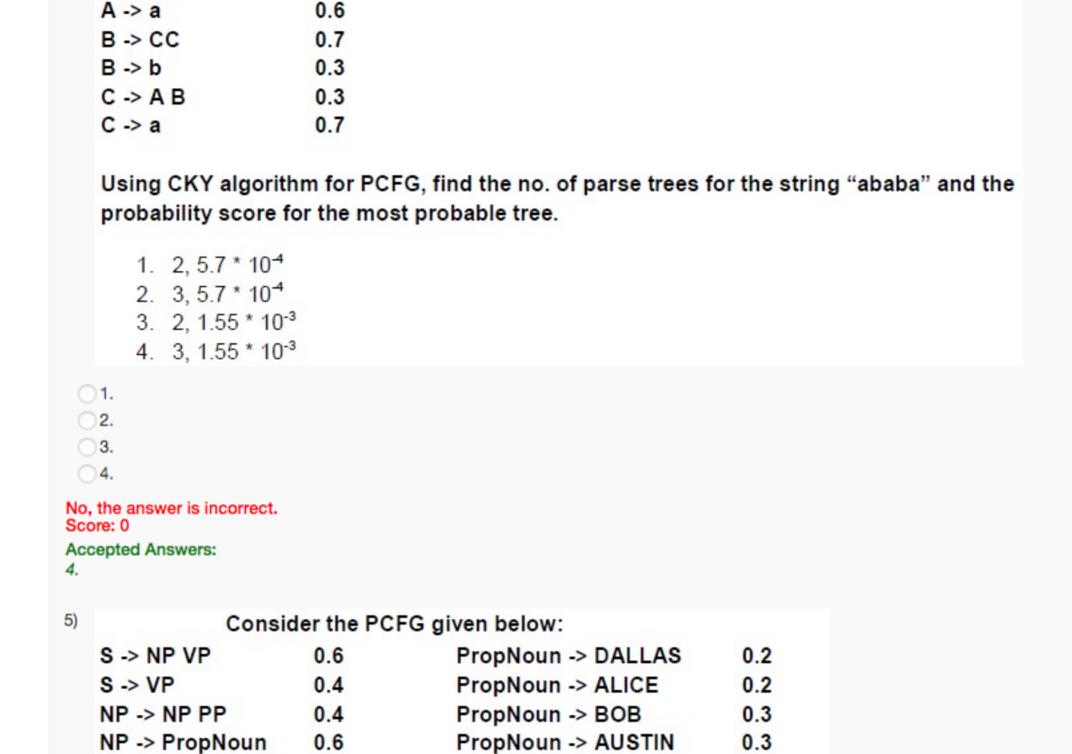
```
Assignment 5
The due date for submitting this assignment has passed.
                                                                                          Due on 2019-09-04, 23:59 IST.
As per our records you have not submitted this assignment.
1)
                                                                                                                     1 point
                Which of the following are true?

    Given a CFG and its corresponding CNF, they both produce the same language.

       2. For a given grammar, there can be more than one CNF.
       3. It requires '2n+1' productions or steps in CNF to generate a string w of length 'n'.
       None of the above
 □ 1.
 2.
 3.
 4.
No, the answer is incorrect.
Score: 0
Accepted Answers:
1.
2.
                                                                                                                     1 point
                Consider the CFG given below:
   S -> ASA | aB
   A -> B | S
   B -> b | ε
   How many non-terminals need to be added to convert the above grammar into CNF?
       1. 1
       2. 4
       3. 2
       4. 3
 1.
 O2.
 3.
 4.
No, the answer is incorrect.
Score: 0
Accepted Answers:
                Which of the following are true with respect to a Top-Down and Bottom-Up
                                                                                                                     1 point
   Parser?

    A Top-Down Parser never explores options that will not lead to a full parse.

       2. A Bottom-Up Parser never explores options that will not lead to a full parse.
       3. A Top-Down Parser never explores options that do not connect to the actual sentence.
       4. A Bottom-Up Parser never explores options that do not connect to the actual sentence.
 □ 1.
 2.
 3.
 4.
No, the answer is incorrect.
Score: 0
Accepted Answers:
```



Verb -> ADORE

Verb -> SEE

Prep -> WITH

Prep -> IN

What is the probability of the sentence  $w_{1,4}$  = "SEE BOB IN AUSTIN"?

0.5

0.5

0.4

0.6

Consider the PCFG given below:

0.3

0.7

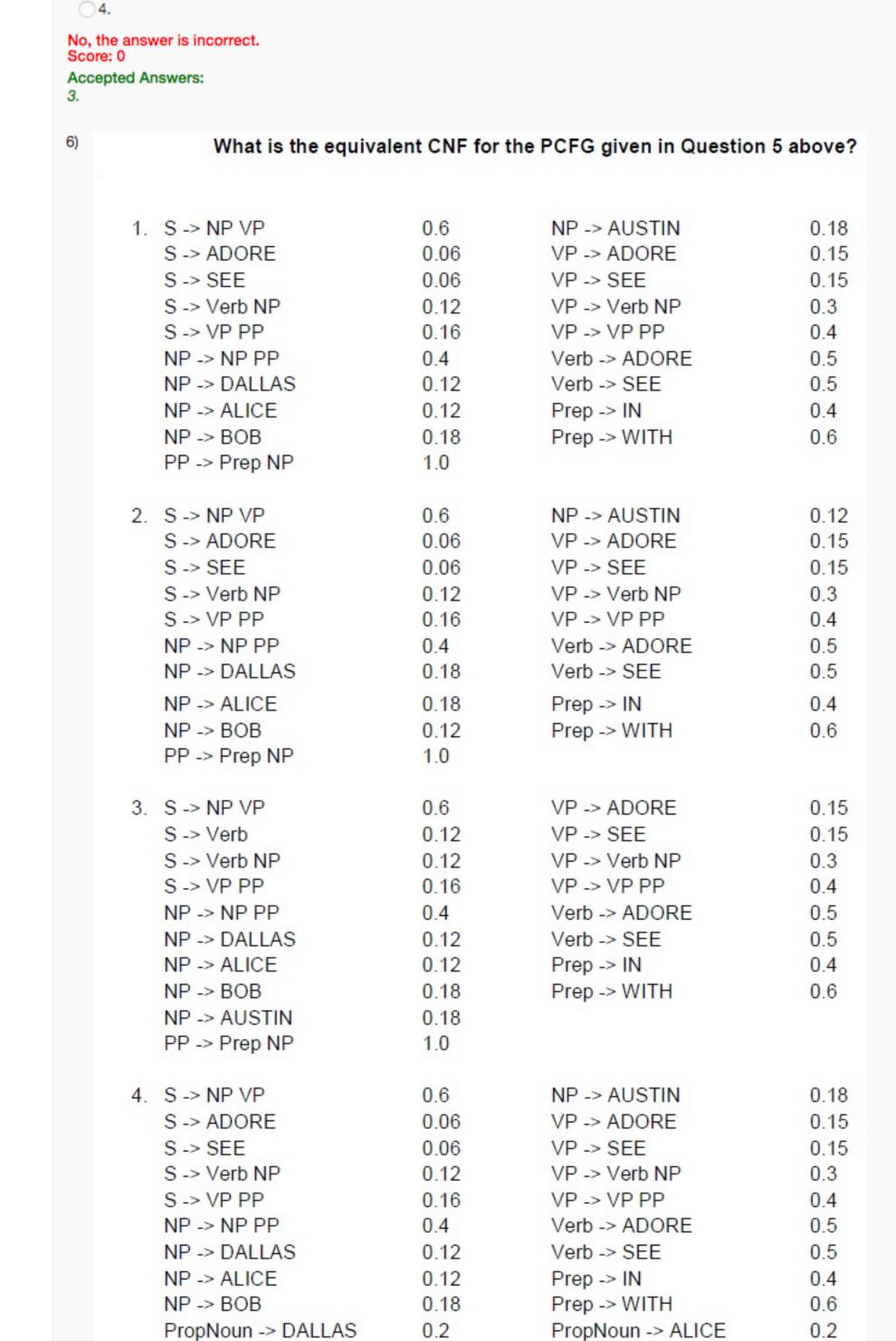
0.4

0.3

0.3

0.4

1.0



0.3

1.0

PropNoun -> BOB

PP -> Prep NP

○1.

**2.** 

**4.** 

Score: 0

3.

No, the answer is incorrect.

Accepted Answers:

PropNoun -> AUSTIN

0.3

