

## NLP - WORKSHEET 4

- 1. (A) It consists of a set of production rules
  - (B) The production rules are of the following form:
    - A-> BC where A is non terminal while B, C can be either terminal or non-terminal
  - (C) These grammars are free of context in which they are used, they will remain same regardless of the context in which they are used
- 2. (A) All the production rules in PCFG has probability associated with them while in CFG we do not have probability of a production rule
  - (B) With PCFG we can find the most probable parse tree of a sentence which we cannot find CFG
- 3. (B) The constituent parsing does not work with free word order languages where same meaning can be depicted with different word order
  - (C) For free word order languages we cannot have a fixed set of production rules.
- 4. (C) Dependency Parsing
- 5. (A) It establish dependencies between words of a sentence
  - (B) The dependencies are established in terms of subject-object-verb and other dependencies
- 6. (A) Chunking
  - (C) unigram chunker
  - (D) bigram chunker
- 7. (A) It uses the POS tag of a word and find the most probable IOB label for that POS tag
- 8. (B) It assigns IOB entity label to a word based on the POS tag of the word
  - (C) It assigns that IOB label which has the maximum probability based on the POS tag
- 9. (C) It uses the POS tag of the word and its previous word to assign the most probable IOB label
  - (D) The IOB label which occurs most frequently for a given pair of POS tags is assigned
- 10. (C) Rule based chunking
- 11. (A) Word Tokenization
  - (B) Lemmatization
- 12. (B) Chat Bot creation
  - (C) A flight booking system which books flights for a customer according to information given by him in query
- 13. (A) It starts with start symbol S
  - (B) we use the CFG production rule to generate the sentence from the S start symbol
- 14. (A) pattern = " $\#\w^*$ "
- 15. (C) pattern = "(a)\w\*"