[Natural Language Processing] MCQ

MODULE-1
Introduction of NLP

1. What is the field of Natural Language processing (NLP)?
   (A)   Computer Science
   (B)   Artificial Intelligence
   (C)   Linguistics
   (D)   All of the mentioned
Answer: D

2.NLP is concerned with the interactions between computers and human (natural) languages.
   (A)   TRUE
   (B)   FALSE
Answer: A

3. What are the main challenge/s of NLP?
   (A)   Handling Ambiguity of sentences
   (B)   Handling
   (C)   Handling POS - Tagging

(D)   All of the mentioned

Answer: A

4. Modern NLP algorithms are based on machines, especially statistical machine learning.

(A)   TRUE
(B)   FALSE

Answer: A

5. Choose form the following areas where NLP can be useful.
(A)   Automatic Questions-Answering Systems
(B)   Automatic Text Summarization
(C)   Informational Retrieval
(D)   All of the mentioned

Answer: D

6. Which of the following includes major tasks of NLP?
(A)   Automatic Summarization
(B)   Discourse Analysis
(C)   Machine Translation
(D)   All of the mentioned

Answer: D

7. What isCoreference Resolution?
(A)   Anaphora Resolution
(B)   Given a sentence or large chunk of text, determine which words
    ("mentions") refer to the same objects ("entities")
(C)   All of the mentioned
(D)   None of the mentioned

Answer:B

8. What is Machine Translation?
(A)   Converts one human language to another
(B)   Converts human language to machine language

(C)   Converts any human language to English
(D)   Converts Machine language to human language
Answer: A

9. The more general task of coreference resolution also includes identifying so-called "bridging relationships" involving referring expressions.
    (A)   TRUE
    (B)   FALSE
Answer: A

10. What is Morphological Segmentation?

    (A)   Does Discourse Analysis
    (B)   Separate words into individual morphemes and identify the class of the morphemes
    (C)   Is an extension of propositional logic
    (D)   None of the mentioned
Answer: B

11. Given a stream of text, Named Entity Recognition determines which pronoun maps to which noun.

    (A)   FALSE
    (B)   TRUE
Answer: A

12. Natural Language generation is the main task of Natural language processing.
    (A)   TRUE
    (B)   FALSE
Answer:A

13. OCR (Optical Character Recognition) uses NLP.
    (A)   TRUE
    (B)   FALSE
Answer: A

14. Parts-of-speech tagging determines_____
   (A) Part-of-speech for each word dynamically as per meaning of the sentence
   (B) Part-of-speech for each word dynamically as per sentence structure
   (C) All part-of-speech for a specific word given as input
   (D) All of the mentioned
Answer: D

15. Parsing determines parse Trees (Grammatical Analysis) for a given sentence.
   (A) TRUE
   (B) FALSE
Answer: A

16. IR (Information Retrieval) and IE (Information Extraction) are the two same thing.
   (A) TRUE
   (B) FALSE
Answer: B

17. Many words have more than one meaning; we have to select the meaning which makes the most sense in context. This can be resolved by _____
   (A) Fuzzy Logic
   (B) Word Sense Disambiguation
   (C) Shallow Semantic Analysis
   (D) All of the mentioned
Answer: B

18. Given a sound clip of a person or people speaking, determine the textual representation of the speech.

   (A) Text-to-speech

(B)   Speech-to-text
(C)   All of the mentioned
(D)   None of the mentioned
Answer: B

19. Speech Segmentation is a subtask of speech Recognition.

(A)   TRUE
(B)   FALSE
Answer: A

20. In linguistic morphology _____ is the process for reducing inflected words to their root form.

(A)   Rooting
(B)   Stemming
(C)   Text-Proofing
(D)   Both Rooting & Stemming
Answer: B

21. How many steps of NLP are there?

(A)   3
(B)   4
(C)   5
(D)   6
Answer:C

22. _____ is the step in which an input sentence is converted into a hierarchical structure that corresponds to the units of meaning in the sentence.

(A)   Syntactic Processing
(B)   Semantic processing
(C)   Graph processing

(D)   All of the mentioned

Answer: A

23. Which among the following is one of the stages in the NLP pipeline?
    (A)   Sentiment Analysis
    (B)   Tokenization
    (C)   Spell Checking
    (D)   Syntax Analysis

Answer: D

24. The process of understanding the meaning and interpretation of words, signs and sentence structure is call as_

    (A)   Tokenization
    (B)   Lexical Analysis
    (C)   Semantic Analysis
    (D)   Sentiment Analysis

Answer: C

25. "I saw bats" contains which type of ambiguity?

    (A)   Syntactic
    (B)   Semantic
    (C)   Lexical
    (D)   Anaphoric

Answer: C

26. "Sita loves her mother and Gita does too" contain which type of ambiguity?

    (A)   Syntactic
    (B)   Semantic
    (C)   Lexical
    (D)   Anaphoric

Answer: B

27. "Linear sequences of words are transformed into structure that show how the words are related to each other" is the part of _____ Analysis.

    (A)   Semantic
    (B)   Syntactic
    (C)   Lexical
    (D)   Pragmatic
Answer: B

28. How many ambiguities exist in the following sentence. "I know little Italian".

    (A)   1
    (B)   3
    (C)   2
    (D)   0
Answer: A

29. In which of the following stages of NLP, does one draw a parse tree?

    (A)   Morphological
    (B)   Syntactic
    (C)   Semantic
    (D)   Pragmatic
Answer: B

30. Using pronouns to refer back entities already introduced in the text is called a _____problem. Anaphora Misspellings.

    (A)   Multiple
    (B)   Meaning
    (C)   Lexical
    (D)   problem
Answer: A

31. ___technique looks at the meaning of the word.

    (A)   Stemming
    (B)   Lemmatization
    (C)   Stop word
    (D)   Identification Morphological Analysis
Answer: B

MODULE-2
WORD LEVEL ANALYSIS

1. Morphological Segmentation is _____

    (A)   Finding the sense of each word in the sentence
    (B)   Separating words into individual morphemes and identifying the
        class of the morphemes
    (C)   An extension of propositional logic
    (D)   Separating words into individual tokens and counting its frequency
        of occurrence
Answer: B

2. Capability vs Capabilities is an example of ____ morphology.

    (A)   Inflectional
    (B)   Normalization
    (C)   Cliticization
    (D)   Derivational
Answer: D

3. N-Gram language models cannot be used for _____

    (A)   Spelling Correction
    (B)   Predicting the completion of a sentence
    (C)   Removing semantic ambiguity

(D)   Speech Recognition

Answer: C

4. Which type of ambiguity is present in the sentence "old men and women were taken to safe locations"? Scope Ambiguity Discourse ambiguity semantics Ambiguity.

(A)   Attachment ambiguity
(B)   Scope Ambiguity
(C)   Discourse ambiguity
(D)   Semantics Ambiguity

Answer: B

5. How many trigrams phrases can be generated from the following sentence, after performing following text cleaning steps: Stopword Removal, Replacing punctuations by a single space? "# Coursera is a great platform to learn @Machine Learning"?

(A)   3
(B)   4
(C)   5
(D)   6

Answer: B

6. Which of the following techniques can be used to compute the distance between two words?

(A)   Lemmatization
(B)   Part of speech Tagging
(C)   Dekang lin
(D)   N-grams

Answer: C

7. How many bi-grams can be generated from given sentence:- "This isNLP book"?

(A) 3
(B) 2
(C) 4
(D) 1
Answer: A

8. How is the word "consultants" stemmed?

(A) Consultant
(B) Consult
(C) Consult
(D) Consultants
(E)
Answer: B

9. Consider the following corpus of 3 sentences. 1) I am here 2) who am I 3) I would like to go. Calculate P(here | am) assuming a bi-gram language model

(A) ⅔
(B) 1
(C) ½
(D) 1/3
Answer: C

10. FST is used in____ Analysis.

(A) Lexical
(B) Morphological
(C) Semantic
(D) Syntactic
Answer: B

11. Which of the following is an example of free morpheme?

(A) Un
(B) Ful
(C) Ly
(D) town
 Answer: B

12. How is the word "change" stemmed using porter stemmer?

(A) Chan
(B) Chang
(C) Change
(D) Cha
Answer: B

13. Which of the following techniques can be used to compute similarity between two sentences in NLP?

(A) Lemmatization
(B) Part of speech Tagging
(C) Cosine similarity
(D) N-Grams
Answer: C

14. What is output of morphological analysis for the input word 'mice'?
(A) Mice N SG
(B) Mouse N SG
(C) Mouse N PL
(D) Mice N PL
Answer: C

15. Which would definitely be rejected by the English syntactic analyzer?

(A) Rahul is going to school
(B) Rahul is coming from school

(C)   Rahul is in the school
(D)   The Rahul the go to the school
Answer: D

16. What is the single morpheme of word "Boxes"?

(A)   Box
(B)   Boxes
(C)   Boxses
(D)   Boxing
Answer: A

17. How is the word "changing" lematized?

(A)   Chang
(B)   Changin
(C)   Chan
(D)   change
Answer: D

18. Which is standard notation for characterizing text sequences?

(A)   Regular expression
(B)   Syntatic expression
(C)   Semantic expression
(D)   Specific expression
Answer: A

19. Which is most common algorithm used in English language for stemming?

(A)   Partial stemmer
(B)   Porter stemmer
(C)   Faster stemmer
(D)   Regular stemmer

Answer: B

MODULE-3
SYNTAX ANALYSIS

1. Solve the equation according to the sentence "I am planning to visit New York to attend International Film Fare Festival".
   A=(# of words with Noun as the part of speech tag)
   B=(# of word with verb as the part of speech tag)
   C=(# of words with frequency count greater than one)
   What are the correct values of A,B, and C?

   (A) 5,5,2
   (B) 5,5,2
   (C) 7,5,1
   (D) 7,4,1
   Answer: D

2. Which of the following will be POS Tagger output when the input sentence is "They
Refuse to permit"

   (A) [('They','PRP'),('refuse','VBP'),('to','TO'),('permit','VB')]
   (B) [('They','NN'),('refuse','VBP'),('to','TO'),('permit','VB')]
   (C) [('They','PRP'),('refuse','NN'),('to','TO'),('permit','VB')]
   (D) [('They','PRP'),('refuse','VBP'),('to','TO'),('permit','VB')]
Answer: A

3. In CFG, terminals mainly correspond to _____while pre-terminals mainly correspond to_____

(A) Characters in the language, POS tags
(B) Words in the language, POS Categorie
(C) Words in the language, word relations
(D) Lexemes, POS Tags
Answer: B

4.HMM is used in_____ phase of NLP.

(A) Syntactic
(B) Semantic
(C) Lexical
(D) Pragmatics
Answer: A

5. Which of the following will be POS Tagger output when then input sentence is "And
Now for something completely different"?

(A) [('And','CC'),('now','RB'),('for','IN'),('Something','RB'),('Completely','RB']]'),('different',]]')]
(B) [('And','CC'),('now','RB'),('for','IN'),('Something','NN'),('Completely','RB'),('different',]]')]
(C) [('And','CC'),('now','RB'),('for','IN'),('something','NN'),('completely','RB'),('different',']]')]
(D) [('And','CC'),('now','RB'),('for','IN'),('Something','NN'),('Completely',']]'),('different',]]')]
Answer: C

6. Identify the POS tag for the word "nice" in following sentence "It was indeed a nice night"?

(A)]]
(B)]]R
(C)]]S

(D)   RB
Answer: A

7. Which of the following belongs to the open class group?

(A)   Noun
(B)   Prepositions
(C)   Determiners
(D)   Conjunctions
Answer: A

8. _____is a group of words that may behave as a single unit or phrase.

(A)   Constituency
(B)   Grammatical
(C)   Sub-categorization
(D)   Dependencies
Answer: A

9. Syntax Analyser is also known as_____,

(A)   Hierarchical Analysis
(B)   Sequential Analysis
(C)   General Analysis
(D)   Hierarchical Analysis and parsing
Answer: D

10. _____tagger uses probabilistic information to assign tags to words.

(A)   Rule based
(B)   Stochastic tagger
(C)   Statistical tagger
(D)   POS tagger
Answer:B

11. "I want an early upgrade" What is the type of word class for word "want"?

    (A)   Verb
    (B)   Determinant
    (C)   Personal pronoun
    (D)   Adjective

Answer: A

12. "Buy books for children" Which type of ambiguity exists in the above sentence?

    (A)   Semmatic
    (B)   Syntactic
    (C)   Stochastic
    (D)   Lexical

Answer: B

13. Stochastic tagger also known as_____

    (A)   HM tagger
    (B)   RMM tagger
    (C)   HMM tagger
    (D)   Super tagger

Answer: C

14. Context-free grammars also known as_____

    (A)   Meaning structure grammars
    (B)   Character structure grammars
    (C)   Shape structure grammars
    (D)   Phrase structure grammars

Answer: D

15. Which is NOT a conjunction?

    (A)   But
    (B)   And
    (C)   Or
    (D)   that

Answer: D

16. Consider the statement "The students went to class". Assign POS tags for the statement.

    (A)   DT NN VB P NN
    (B)   DT NN NN P NN
    (C)   NN NN VBG P NN
    (D)   DT NN VB P DT

Answer: A

17. CFG captures_____

    (A)   Constituency and ordering
    (B)   Word meaning
    (C)   Relation between words
    (D)   Sentence meaning

Answer: A

18. Which of the following belongs to the open class group?

    (A)   Verb
    (B)   Prepositions
    (C)   Determinants
    (D)   Conjunctions

Answer: A

MODULE-4
SEMANTIC ANALYSIS

1. What type of relation exist between the words "meet" and "meat"?

   (A)   Homophones
   (B)   Hyponym
   (C)   Co-hyponyms
   (D)   Homonyms

   Answer: A

2. Consider the following given sentence. Match the lexical relations between the first word (w1) to the second word (w2) i.e.w1 is a of w2.

   ● Invention of the wheel is one of the landmarks in the history of mankind.
   ● Companies are trying to make driverless car.
   ● Golden daffodils are fluttering and in the breeze.
   ● Mumbai has unique flower park.

   1.Holonym -> i.Wheel-car
   2.Hyponym -> ii.car-wheel
   3.Meryonym -> iii, daffodils-flower
   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-ii, 3-iv, 4-i
   (D) 1-i, 2-ii, 3-iii, 4-iv

   Answer: B

3. TF-IDF helps in_____

    (A)   Finding the most frequency occurring word in the document
    (B)   Spelling corrections
    (C)   Stemming and lemmatization
    (D)   Removing stop words in the document

Answer(A)

4. The words "bank/data/blood bank" is an example of
    _____

    (A)   Homophony
    (B)   Synonymy
    (C)   Polysemy
    (D)   Hyponymy

Answer: C

5. In the sentence, "He ate the pizza", the BOLD part is an example of
_____.

    (A)   Noun phrase
    (B)   Verb phrase
    (C)   Prepositional phrase
    (D)   Adverbial phrase

     Answer: B

6. Which is example of homophony?

    (A)   Homophony
    (B)   Synonymy
    (C)   Polysemy
    (D)   Hyponymy

Answer: C

7. How many noun phrases are there in the following sentence, "The thief robbed the apartment"?

(A)　1
(B)　2
(C)　3
(D)　4

Answer: B

8. "Car is a _____ of " vehicle".

(A)　Antonym
(B)　Hypernym
(C)　Hypenym
(D)　Hyponym

Answer: D

9. "The car hit the pole while it was moving. "What type of ambiguity exists in above sentence?

(A)　Semantic
(B)　Syntactic
(C)　Lexical
(D)　Pragmatic

Answer: A

10. X is a_____of Y if it denotes a part of Y.

(A) Meronym
(B) Hyponym
(C) Hynonyms
(D) Hypernyms

Answer: A

11. Which of the following pair represents Antonomy lexical relation?

   (A)   (fat, thin)
   (B)   (crow, bird)
   (C)   (window, door)
   (D)   (head, nose)
   Answer: A

12. Perfect homonyms create problems in_____

   (A)   Text Recognition
   (B)   Information Retrieval
   (C)   Text classification
   (D)   Speech Recognition
   Answer: D

13. _____are the lexemes with the same orthographic form but different meaning.

   (A)   Homographs
   (B)   Homophones
   (C)   Synonyms
   (D)   Hypernyms
   Answer: A

14. The study of which words occur together, and their frequency of co-occurrence is called as

   (A)   Connotation
   (B)   Collocation
   (C)   Implication
   (D)   Location
   Answer: B

15. Which semantic relation exists between the words "piece" and "peace"?
   (A)   Homophony
   (B)   Homonymy
   (C)   Hypernymy
   (D)   Meronymy
   Answer: A

16. _____are created when the constituents within the sentence describe the role of the entities (we look at the NP in a sentence to see who/what is creating the action in the VP); found in each sentence

   (A)   Semantic Analysis
   (B)   Semantics
   (C)   Syntactic features
   (D)   Semantic Roles
   Answer: D

17. Characterizing the meaning of words in terms of its relationship to other words such as synonymy, antonymy,and hyponymy is called

   (A)   Lexical relationship
   (B)   Semantic analysis
   (C)   Collocation
   (D)   Gradable antonyms
   Answer: B

MODULE-5
PRAGMATICS

1. "The German authorities said a 'Colombian' who had lived for a long time in the Ukraine flew in from Kiev. 'He' had 300 grams of plutonium 239 in his baggage. "Is an example of which type of reference?

   (A)   Nominative pronoun
   (B)   Oblique pronoun
   (C)   Possessive pronoun
   (D)   Reflexive pronoun
   Answer: A

2. How many types of Deixis exists?

   (A)   3
   (B)   5
   (C)   4
   (D)   2
   Answer: B

3. _____used to point to things (it, this, these) and people (him, them, those idiots).

   (A)   Spatial deixis
   (B)   Pragmatics
   (C)   Temporal deixis
   (D)   Personal deixis
    Answer: D

4. The words that pronoun refer back to are called as_____

(A) Antecedent
(B) Context
(C) Reference
(D) Speech act
Answer: A

5. Consider the following sentence. " The horse ran up the hill. It was very steep. It soon got tired. "What type of ambiguity is introduced due to the word " "it"?

(A) Syntactic
(B) Pragmatics
(C) Cataphoric
(D) Anaphoric
Answer: D

6. "He doesn't know" is an example of_____ type of deixis.

(A) Personal
(B) Social
(C) Space
(D) Time
Answer: D

7. "Ram's bike is new" is_____type of presupposition.

(A) Factive
(B) Existential
(C) Lexical
(D) Structure
Answer: B

8. _____are the entities that have been previously introduced into the discourse.

(A) Anaphoras
(B) Cataphoras
(C) Pronoun
(D) derminers
Answer: A

9. "Yesterday I went to college" contains _____type of deixis.

(A) Personal
(B) Time
(C) Social
(D) Space
Answer: B

10. "I appoint you chairman of the committee" is which type of speech act?

(A) Commissives
(B) Directives
(C) Declarations
(D) Representatives
Answer: C

11. "You better go to the clinic", is which type of speech act?

(A) Commissives
(B) Directives
(C) Declarations
(D) Representative
Answer: B

12. "I promise to come" is which type of speech act?

(A) Commissives
(B) Directives

(C)   Declarations
(D)   Representative
Answer: A

13. _____ambiguity refers to a situation where the context of a phrase of phrase gives gives it multiple interpretation

(A)   Pragmatic
(B)   Anaphoric
(C)   Discourse
(D)   Cataphoric
Answer: A

14. _____is the study of now the language is used to refer (and re-refer) to people and things?

(A)   Morphology
(B)   Syntatic
(C)   Sementic
(D)   Pragmatics
 Answer: D

 15. Which of the following techniques isused to remove semantic ambiguity?

(A)   Fuzzy logic shallow word sense
(B)   Analysis
(C)   Syntactic analysis word sense
(D)   Disambiguation
Answer: D

16. Which is not an example of stop word?
(A)   A
(B)   Is

(C) An
(D) good
Answer: D

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MODULE

APPLICATIONS OF NLP

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1. Anita has got the transcripts for the Minister's press meet on NEP. She wants to summarize the Minister's opinion on NEP strengths and weakness. Which of the following summarization method should she apply?
   - (A) Abstractive generic
   - (B) Extractive generic
   - (C) Abstractive query focussed
   - (D) Summative generic

   Answer: C

2. What is the right order for a text classification model components
   1. Text cleaning
   2. Text annotatio
   3. Gradient descent
   4. Model tuning
   5. Text to predictors

   - (A) 12345
   - (B) 13425
   - (C) 12534
   - (D)   13452

   Answer: C

3. The _____summarization technique involves pulling keyphrases from the source document.

(A)   Extractive
(B)   Abstractive
(C)   Regular
(D)   Automatic
Answer: A

4. Spam email detection comes under which domain?

(A)   Text Categorization
(B)   NER
(C)   Text Classification
(D)   Sentiment Analysis
   Answer: C

5. Which type of summarizer will be suitable for summarizing tweets about Covid19?

(A)   Extractive
(B)   Explorative
(C)   Explainable
(D)   Absolute
   Answer: A

6. Which will be suitable NLP method for COVID19 News Analysis from the online newspaper?

(A)   NER
(B)   Machine translation
(C)   Sentiment Analysis
(D)   Text Summarization
Answer: D

7. TO automat HR recruitment process _____type of NLP application will be suitable.

   (A)   Questions Answering system
   (B)   Machine translation
   (C)   Sentiment Analysis
   (D)   NER
   Answer: A

8. For automated complaint handling _____type of NLP application can be used

   (A)   NER
   (B)   Machine translation
   (C)   Sentiment Analysis
   (D)   Text categorization
   Answer: D

9. In the case of search Engine Optimization,_____NLP technique can be used

   (A)   Machine Transltion
   (B)   Question Answering system
   (C)   Text summarization
   (D)   Sentiment Analysis
   Answer: D

10. Which of the following is efficient representation of text data?

   (A)   Bag of word
   (B)   TF-IDF
   (C)   Word Vector
   (D)   BERT
   Answer: D

11. Which of the following is the major problem in machine Translation?

  (A) Referential Ambiguity
  (B) Stop word
  (C) Emotions
  (D) Proper noun
 Answer: A

12. For Hate speech detection from facebook messages _____NLP technique can used

  (A) Text Classification
  (B) Information Retrieval
  (C) Information Summarization
  (D) Information indexing
Answer: A

13. For Research article recommendation system _____NLP application can used

  (A) Informational Retrieval
  (B) Text Classification
  (C) Text summarization
  (D) NER
Answer: B

14. Named entity recognition is a technique to locate and classify _____entities in unstructured text.

  (A) Proper noun
  (B) Verb
  (C) Adjective
  (D) Prepositions
 Answer: A

15. Which of the following entities are identified by NER?
    (A)   Proper nouns
    (B)   Noun phrase
    (C)   Verb phrase
    (D)   adverb
Answer: A

16. Which application use to determine people in context?

    (A)   Stemming
    (B)   Lemmatization
    (C)   Stop word removal
    (D)   Named entity recognition
    Answer: D

17. Which is the most suitable technique for "Trending Topic on Twitter"?

    (A)   Term frequency
    (B)   NER
    (C)   Tokenization
    (D)   segmentation
    Answer: A

18. "Sunder picha is the CEO of google having headquarters in california",
How many named entities exist in above sentence.
    (A)   4
    (B)   2
    (C)   3
    (D)   1
Answer: C

19. Google news aggregator is example of_____

    (A)   Machine translation application
    (B)   Text summarization application

(C)   NER application

(D)   Information retrieval application

Answer: B

20. Deciding insurance premium of a car based on online customers reviews is an application of _____

(A)   Information retrieval

(B)   Information Extraction

(C)   Sentiment Analysis

(D)   Text Summarization

Answer: C