

University of Mumbai
Examination 2020 under cluster 4 (PCE)

Program: BE Computer Engineering

Curriculum Scheme: Rev 2016

Examination: Final Year Semester VIII

Course Code: DLO8012 and Course Name: Natural Language Processing

| Module No | Q NO | QUESTION (2 marks per question) | OPTIONS | | | |
|-----------|------|---|---------------------------|---------------------------------|----------------------------|----------------------------|
| | | | A | B | C | D |
| 1 | 1 | Knowledge of the relationship of meaning to the goals and intentions of the speaker is | Morphology | Semantics | Pragmatics | Discourse |
| | 2 | The input/output of a NLP system cannot be: | Sentence | Speech | 3D Model | Document |
| | 3 | Spam E-mail detection is _____ | Text Summarization system | Text Categorization System | Sentiment analysis System | Machine Translation System |
| | 4 | Humhe khaanna khaanna hai. Here the type of ambiguity is | Phonetic | Lexical | Structural | Semantic |
| | 5 | Natural Language Processing can be divided into two subfields of | syntax and semantics | generation and understanding | derivation and inflection | text and speech |
| | 6 | _____ concerns how sentences are used in different situations and how use affects the interpretation of the sentence. | Syntax | Phonology | Pragmatics | Discourse |
| | 7 | Which of the following is not true input for the NLP? | Image | Text | Types input | Speech |
| | 8 | The dish is displayed on the screen. Here the type of ambiguity is | Phonetic | Lexical | Structural | Semantic |
| | 9 | If we want to capture a request, or perform an action, use an _____. | entity | content | identity | intent |
| | 10 | Generating natural, conversational language that explains complex concepts in a way that is easy to consume. | Intuitive | Relevant | Timely | Space |
| | 11 | _____ concerns how the immediately preceding sentences affect the interpretation of the next sentence | Pragmatics | Syntax | Discourse | Semantics |
| | 12 | Visiting relatives can be boring | The text is unambiguous | The text is ambiguous | The text clear and precise | The text is indisputable |
| | 13 | Which of the following is not true input for the NLP? | Image | Text | Types input | Speech |
| | 14 | What is the main challenge of NLP? | Handling Tokenization | Handling Ambiguity of Sentences | Cleaning Text | Filtering Text |

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| 1 | Which of the following techniques is most appropriate to the process of word normalization | Stemming | Lemmatization | Stop word removal | Rooting |
| 2 | Porter Stemmer algorithm consists of how many steps | 4 | 3 | 5 | 6 |
| 3 | "The Cat flies" after applying which ngram gives the output as "The Cat", "Cat flies" | Unigram | Bigram | Trigram | Quadrigrams |
| 4 | Divide the word "truthfulness" into base form + morphemes will give the output as | truthful-ness | truth-ful-ness | truth-fulness | truthfulness |
| 5 | In the word "desirability" how many morpheme is present | One | Two | Three | Four |
| 6 | The word "Tree" is an example of | Complex words | Compound words | Simple words | Joint Words |
| 7 | Words with just one free morpheme are | Simple words | Complex words | Joint Words | Compound words |
| 8 | _____ of a transducer is useful because it makes it easy to convert a FST-as-parser into an FST-as-generator. | parser | inversion | composition | generation |
| 9 | Which approach is used for spelling error detection and correction | Script Validation | Tokenization | N-gram | Filteration |
| 10 | Which of the following techniques is most appropriate to get root of word without considering word syntax | Stemming | Lemmatization | Stop word removal | Rooting |
| 11 | FST cannot work as _____ | recognizer | generator | translator | lexicon |
| 12 | is used to remove the suffixes from an English word and obtain its stem which becomes very useful in the field of Information Retrieval (IR). | HMM Stemmer | Porter Stemmer | Markov Stemmer | Bert Stemmer |
| 13 | Typing buckled when you meant bucked is a type of which Spelling error | Non-word Errors | Real Word Errors | Cognitive Errors | Short forms/Slang/Lingo |
| 14 | Which is a finite state machine with two tapes: an input tape and an output tape | Finite State Transducers (FSTs) | Finite State Translators (FSTs) | Finite Automata | Deterministic Finite Automaton |
| 15 | Both _____ and finite-state automata can be used to describe regular languages | Language model | Deterministic Finite Automata | Regular expressions | Finite State Translators (FSTs) |
| 16 | Function morphemes are also called _____ | open-class morphemes | sub-class morphemes | super-class morphemes | closed-class morphemes |
| 17 | Which of the following is an advantage of normalizing a word? | It guarantees word to be inconsistent | It helps in reducing the randomness in the word | It increases the false negatives | It increases the dimensionality of the input |
| 18 | _____ involves resolving words to their dictionary form | Overstemming | Understemming | Lemmatization | NER |
| 19 | Stemming for the word cries is _____ | cry | cries | cri | ies |

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| 20 | _____ morphology is a type of word formation that creates new lexemes | Derivational morphology | Compound morphology | Inflectional morphology | Complex morphology |
| 1 | In the sentence " I made her duck." Here the word "her" is | semantically ambiguous | syntactically ambiguous | morphologically ambiguous | not ambiguous |
| 2 | _____ use hand-written rules to identify the correct tag | Stochastic POS tagging | Rule based POS tagging | Transformation based Tagging | Fuzzy logic based Tagging |
| 3 | Parts of speech can be divided into two broad supercategories, one supercategories is | Sub Class | Open Class | Join Class | Empty Class |
| 4 | The phase Syntax Analysis is modeled on the basis of | High level language | Low level language | Context free grammar | Regular grammar |
| 5 | Parts-of-Speech tagging determines _____ | part-of-speech for each symbol only generated dynamically as per meaning of the sentence | part-of-speech for each word dynamically as per sentence structure | all stem for a specific word given as input | all lema for a specific word given as input |
| 6 | A context free language is called ambiguous if _____ | It has 2 or more left derivations for some terminal string $w \in L(G)$ | It has 2 or more right derivations for some terminal string $w \in L(G)$ | It has 2 or more left & right derivations for some terminal string $w \in L(G)$ | It has 3 or more left & right derivations for some terminal string $w \in L(G)$ |
| 7 | Which one of the following statement is false? | The CFG can be converted to Chomsky normal form | The CFG can be converted to Greibach normal form | CFG is accepted by pushdown automata | CFG is accepted by Chomsky normal form |
| 8 | Push down automata accepts which language? | Context sensitive language | Context free language | Recursive language | Context Recursive language |
| 9 | Which of these does not belong to CFG? | Terminal Symbol | Non terminal Symbol | Start symbol | End Symbol |
| 10 | Which is not a POS tagging approaches | Rule based POS tagging | Stochastic POS tagging | Transformation based Tagging | Fuzzy logic based Tagging |
| 11 | In an HMM, observation likelihoods measure | The likelihood of a POS tag given a word | The likelihood of a POS tag given the preceding tag | The likelihood of a word given a POS tag | The likelihood of a POS tag given two preceding tags |

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| 12 | Which one of the following is TRUE about CRF (Conditional Random Field) and HMM (Hidden Markov Model)? | CRF is generative model and HMM is discriminative model | Both CRF and HMM are generative model | CRF is discriminative model and HMM is generative model | Both CRF and HMM are discriminative model |
| 13 | _____ is a process of assigning corresponding part of speech like noun, verb, adverb, adjective, verb to each word in a sentence. | Part of speech tagging | Name entity tagging | Parsing | Disambiguation |
| 14 | Mujhe khaanna khaanna hai. What will be tag of third word in the given sentence. | Noun | Verb | Adverb | Auxiliary verb |
| 15 | “Innocent peacefully children sleep little” vs “Innocent little children sleep peacefully”. Which stage of NLP helps to find proper ordering of sentences | Morphology Analysis | Phonology Analysis | Semantics Analysis | Syntax Analysis |
| 16 | Nouns, Verbs, Adjectives, Adverbs belong to ____ class type in POS | Join Class | Open Class | Sub Class | Closed class |
| 17 | Rule-based POS taggers doesnt possess which of the following properties | The rules in Rule-based POS tagging are built auto | These taggers are knowledge-driven taggers | These taggers are consist of many hand written rules | The information is coded in the form of rules. |
| 18 | Which algorithm is used for solving temporal probabilistic reasoning? | Hill-climbing search | Hidden markov model | Depth-first search | Breadth-first search |
| 19 | Where does the Hidden Markov Model is used? | Speech recognition | Understanding of real world | Both Speech recognition & Understanding of real world | Understanding of real world images |
| 20 | In syntax analysis the input is provided from | Morphology Analysis | Phonology Analysis | Semantics Analysis | Pragmatic Analysis |
| 1 | _____ is the problem of selecting a sense for a word from a set of predefined possibilities. | Shallow Semantic Analysis | Discourse | Word Sense Disambiguation | Pragmatic |
| 2 | Class of methods that induces a classifier from manually sense-tagged text using machine learning techniques. | Supervised WSD | unsupervised WSD | Semi-supervised WSD | Normal WSD |
| 3 | Which type of semantics is concerned with the linguistic study of systematic, meaning related structure of words or lexemes | Compound Semantics | Lexical semantics | Compositional semantics | Word Semantics |

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| 4 | _____ principle states that the meaning of the whole sentence is comprised of the meaning of its parts that is the meaning of the sentence can be composed from the meaning of its constituent words | hobs | porter | freg's | markov |
| 5 | NP → Det Adj Noun, it denotes _____ | Adjective Phrase | Noun Phrase | Noun Adjective Phrase | Determiner Phrase |
| 6 | In the sentence " I made her duck." Here the word "make" is | semantically ambiguous | syntactically ambiguous | morphologically ambiguous | not ambiguous |
| 7 | Which is the process whereby meaning representations are composed and assigned to linguistic inputs | Semantic analysis | Lexical analysis | Syntax Analysis | Morphology Analysis |
| 8 | Which is not one of the four frequently used meaning representations | First Order Predicate Calculus (FOPC) | Syntatic Network | Semantic Network | Conceptual Dependency diagram |
| 9 | Which is not types of antonyms | Polar antonyms | Equipollent antonyms | Overlapping antonyms | Unipolar antonyms |
| 10 | Which are words that have the same form but have different, unrelated meanings | Polysemy | Homonyms | Synonymy | Antonymy |
| 11 | A verb phrase cannot have a | a verb followed by an NP {VP → Verb NP} | a verb followed by a PP {VP → Verb PP} | a verb followed by two NPs {VP → Verb NP NP} | a verb followed by two APs {VP → Verb AP AP} |
| 12 | _____ is a word with the most specific meaning | hyponym | synonymy | hypernym | homonyms |
| 13 | Which type of semantics is concerned with how words combine to form larger meanings | Compound Semantics | Compositional semantics | Lexical semantics | Word Semantics |
| 14 | The word bank can be (river bank or financial institution) it denotes | Antonymy | Polysemy | Homonyms | Synonymy |
| 15 | _____ is a phrase whose head is a noun or a pronoun, optionally accompanied by a set of modifiers. | Pronoun Phrase | Adverb Phrase | Noun Phrase | Proposition Phrase |
| 16 | From a verb to a specific manner elaboration of that verb | Homonymy | Troponym | Polysemy | Metonymy |
| 1 | The study of how knowledge about the world and language conventions interact with literal meaning is called as _____. | Morphology | Discourse analysis | Co reference | Reference Resolution |
| 2 | Anaphoric relations hold between _____ phrases that refer to the same person or thing. | Verb | Noun | Preposition | Adjective |
| 3 | The reference to an entity that has been previously introduced into the sentence is called as _____. | discourse | anaphora | co refer | referent |

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| 4 | Discourse analysis is a part of _____. | Semantic Analysis | Syntax Analysis | Pragmatics | Morphology |
| 5 | In Reference Resolution the entity that is referred is called as _____. | corefer | referent | anaphora | subject |
| 6 | _____ can specify the results of processes described by utterances in a discourse. | generics | one-anaphora | Inferrables | discontinuous sets |
| 7 | Inferrables, discontinuos sets, generics are the three types of referents that complicate the _____ problem. | Word sense disambiguation | discourse | reference resolution | pragmatics |
| 8 | Inferrables, discontinuos sets and _____ are the three types of referents that complicate the reference resolution problem. | Indefinite Noun phrases | demonstratives | one anaphora | generics |
| 9 | John has a cat and Mary has a rabbit. They play with them all the time. Identify the reference resolution problem in the above statement | Generics | Discontinuous sets | Inferrables | one anaohora |
| 10 | The choice between two _____ is generally associated with some notion of spatial proximity. | inferrables | demonstratives | generics | noun phrase |
| 11 | When a referent is first mentioned in a discourse, we say that a representation for it is _____ into the model. | created | evoked | accessed | initiated |
| 12 | Number, person, gender and case agreements are examples of which types of constraints on reference resolution? | semantic | lexical | discourse | syntactic |
| 13 | Pronouns usually refer to entities that were introduced no further than one or two sentences back in the ongoing discourse, whereas _____ can often refer further back. | demonstratives | indefinite noun phrase | one anaphora | definite noun phrases |
| 14 | Mentions are span of text referring to some entity. Which is not a mention here? | Named entities | Pronouns | Noun phrases | Adverb phrases |

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| | 15 | Pragmatics cannot be defined as | It is the study of speaker meaning | It is the study of contextual meaning | It is the study of how more gets communicated than is said | It is the study of sound |
| | 16 | _____ can also specify the results of processes described by utterances in a discourse. | Pronouns | demonstratives | generics | inferrables |
| 6 | 1 | What changes the letters from one alphabet or language into the corresponding, similar-sounding characters of another alphabet | Summarization | Translation | Transliteration | Transformation |
| | 2 | Which is an automatic way of determining the scope of negation and inverting the polarities of opinionated words that are actually affected by a negation. | Opinion Handling | Negation handling | Discourse Handling | Scope Handling |
| | 3 | Which method of sentiment analysis uses a variety of words annotated by polarity score, to decide the general assessment score of a given content. | Word-Based | Lexicon-Based | Hybrid | Opinion-Based |
| | 4 | When gmail extracts only the data from the email recived for you to add in your Google Calendar. This example denotes | Information extraction | Information retrieval | Information Handling | Information Transformation |
| | 5 | Which NLP application involves conversion of Hindi text into SQL queries | Natural Language Conversion to Database | Information retrieval | Natural Language Extraction from Database | Natural Language Interface to Database |
| | 6 | Which is concerned with retrieval from a document collection where documents in multiple languages co-exist and need to be retrieved to a query in any language. | CLIR | BLIR | MLIR | Monolingual IR |
| | 7 | Quora is an example of which type of question answering system | Close | Open | Sub | Aspect |
| | 8 | Paraphrase detection does not much contributes to which NLP task | Text summarization | Document Clustering | Spech Recognition | Question Answering |
| | 9 | _____ System consists of collection of grammar rules, dictionary, and software programs to process the rules. | Direct translation | Knowledge based Machine Translation | Rule based translation | Example Based translation |
| | 10 | Any question and answering system is classified into _____ and _____ types | Locked domain QAS, Unlocked Domain QAS | Easy Domain QAS, Difficult Domain QAS | Close Domain QAS , Open Domain QAS | Direct Domain QAS, Indirect Domain QAS |

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| 11 | _____ deals with analyzing emotions, feelings and attitude of speaker or writer from given piece of text | Semantic Analysis | Sentiment Analysis | Information Retrieval | Text classification |
| 12 | The process of assigning tags or categories to text according to its content is called | Sentiment Analysis | Text Summarization | Information Retrieval | Text classification |
| 13 | Which is not the Classification levels in Sentiment Analysis | Document-level | Character-level | Aspect-level | Sentence-level |
| 14 | Which is not the main challenges in machine translation? | Word Translation | Phrase Translation | Syntactic Translation | Special Characters Translation |
| 15 | In which method parts of the documents are labeled and other parts are not labeled during text categorization | Supervised learning method | Unsupervised learning method | Semi-supervised learning method | Sub-supervised learning method |
| 16 | which one of the following is not Tools/Techniques that can be used with sentiment analysis | SentiWordNet | Latent semantic analysis | Latent semantic analysis | Abstractive analysis |

