University of Mumbai

Examinations summer 2022

Examination: BE Semester-VIII (Rev2016)

Course Code: **DLO8012**   Course Name: **Natural Language Processing**

Time: 2 hours 30 minutes   Max. Marks: 80

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Q1.	Choose the correct option for the following questions. All the questions are compulsory and carry equal marks
1.	What does morphological disambiguation mean?
Option A:	It is a process to check semantics in the given context
Option B:	It is a process of choosing the proper morphological interpretation of a token in a given context.
Option C:	Process of defining only rules.
Option D:	Process of selecting the algorithm
2.	_____is a process of assigning a corresponding part of speech like a noun, verb, adverb and adjective to each word in a sentence.
Option A:	Stemming
Option B:	Lemmatization
Option C:	Part-of-speech tagging
Option D:	Parsing
3.	The process of deciding what pronouns and other noun phrases refer to is known as
Option A:	Inferable
Option B:	Coreference Resolution
Option C:	Reflexive
Option D:	Verb Semantics
4.	Lesk algorithm
Option A:	converts words to vectors
Option B:	finds comparison between two words
Option C:	measures overlap between sense definitions for all words in context
Option D:	check for similarity between words in context
5.	Which of the following is an example of "hyponym-hypernym" semantic relationship?
Option A:	Car-Vehicle
Option B:	Car-Wheel
Option C:	Wheel-Car
Option D:	Car-Ford
6.	The stemming algorithm is used to
Option A:	Form complex words from base form
Option B:	Generates the parse tree of a sentence
Option C:	Check meaning of a word in dictionary
Option D:	Reduce inflected form of a word to a single base form

7.	In which of the summarization technique, the summary contains the sentences from the given document only?
Option A:	Extractive Summarization
Option B:	Abstractive summarization
Option C:	Mixed Summarization
Option D:	Copied summarization
8.	The ambiguity in the sentence - Rima went to Gauri. She said, "I am tired."
Option A:	Syntactic Ambiguity
Option B:	Semantic Ambiguity
Option C:	Lexical Ambiguity
Option D:	Referential Ambiguity
9.	Pragmatic refers to
Option A:	Literal meaning
Option B:	Intended meaning
Option C:	Structural meaning
Option D:	Wordnet dictionary meaning
10.	Natural Language Generation does not involve the following task
Option A:	Producing meaningful phrases and sentences
Option B:	Mapping the given input in natural language into useful representations.
Option C:	Retrieving the relevant content from the knowledge base.
Option D:	Mapping sentence plan into sentence structure

Q 2	Solve any Two Questions out of Three (20 Mark)
A	What is information retrieval and machine translation in applications? Give a brief answer on both.
B	What is Word Sense Disambiguation? Illustrate with an example how the Dictionary-based approach identifies the correct sense of an ambiguous word.
C	Explain derivational and inflectional morphology in detail with suitable example

Q 3	Solve any Two Questions out of Three (20 Mark)
A	Why it is important to preprocess text data in natural language? Explain in detail the steps of preprocessing with examples.
B	What are the five types of referring expressions? Explain with example
C	Write Note on Text Summarization

Q 4	Solve any Two Questions out of Three (20 Mark)
A	What is a language model? Explain the N-gram model
B	How HMM is used for POS tagging? Explain in detail.
C	What is lexicon, lexeme and Explain the different types of relations that hold between lexemes with example