



ज्ञान, विज्ञान आणि सुसंस्कार यांसाठी शिक्षण प्रसार - शिक्षणमहर्षी डॉ. बापूजी साळुंखे

Shri Swami Vivekanand Shikshan Sanstha, Kolhapur.

VIVEKANAND COLLEGE, KOLHAPUR

(An Empowered Autonomous Institute)

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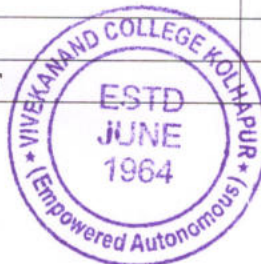
Department of Computer Studies

Surprise Test-I

Subject-NLP

Date-13/09/2025

ROLL NO.	NAME	MARKS
1	AGLAVE AARTI HARIDAS	13
2	*AMANE SALONI SATISH	12
3	*APATE KOMAL ARVIND	14
4	*BAVADEKAR MANASI PRAKASH	13
5	*BHOI SHREYA SACHIN	14
6	BHOSALE KARTIK KUMAR	AB
7	*BHOSALE DEVIKA RAMCHANDRA	16
8	CHAVAN ABHISHEK RAJESH	14
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10	*CHECHAR ADITI UTTAM	14
11	*SHIVANI DATTATRAY CHOPADE	15
12	CHOPADE JAMES PRAVIN	16
13	*CHORMARE PRERANA SANJAY	14
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16	JADHAV AKASH SURYAKANT	AB
17	*JADHAV RADHIKA NITIN	AB
18	*JADHAV NISHA GUNDOPANT	AB
19	KAKADE SIDDHESH VINIT	AB
20	*KALE SHRUTI SATISH	14
21	*KAMAT SWATI SHRIKANT	AB
22	KAMBALE SHREYASH RAJENDRA	AB
23	KAMBLE RUTVIK MURALIDHAR	AB
24	KAMBLE VINAY KAKASO	AB
25	KHADRE JAY SANJAY	AB
26	*KHAMBE VAISHNAVI MADHUKAR	AB
27	*KHOT SAKSHI DATTATRAY	16
28	*KOKATE SANDHYA ARUN	16
29	KORADE SIDDHESH RAMAKANT	AB



30	*KOTAMIRE POURNIMA UJWAL	14
31	KUMBHAR SOURABH RAJESH	AB
32	*KUMBHAR POOJA MARUTI	AB
33	*LOKHANDE ASHLESHA ANANDA	AB
34	LOTAKA OM RAHUL	14
35	*MAGDUM JYOTI KUMAR	AB
36	MAHADIK SANGRAMSINH TATYASAHEB	AB
37	*MARALKAR PRATIKSHA VITTHAL	14
38	NADAWADE PRASANNAJEET BHAGAVAN	13
39	NIGADE SNEHAL RAMCHANDRA	11
40	*NILKANTH NIKITA NAMDEV	13
41	PATEL MUHAJIJ GOUSMAHAMAD	15
42	PATHAN AAKIBMATIN FIROZKHAN	16
43	*PATIL SHIVALI SANDIP	13
44	*PATIL SHRAVANI MALGOUNDA	14
45	*PATIL SHREYA SHAMRAO	14
46	*PATIL VAISHNAVI VISHWAS	15
47	*PATIL VAISHNAVI BALIRAM	16
48	*PATIL ROHINI DATTATRAY	15
49	PRASAD VIVEK KALPNATH	AB
50	*SANGAR SHITAL RAVINDRA	12
51	*SHAIKH SUMAIYA AMAN	13
52	SHELAKA PARTH PRABHAKAR	AB
53	*SHINDE ARATI ARUN	AB
54	SHIVASHARAN ADITYA RAMESH	AB
55	*THOMBARE SHRUTI VILAS	11
56	*TUPE SHREYA MOHAN	14
57	*VADD SHWETA YASHVANT	13
58	*VARNE SAKSHI SUNIL	20
59	*WAINGADE SAMRUDDHI SANJAY	AB
60	YADAV AISHWARYA SANJAY	15
61	*KHADE SHARVARI EKNATH	AB



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Surprise Test

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Date: / /
Page:

Subject: Natural Language Processing

Name: Nandini Shashikant Chougale

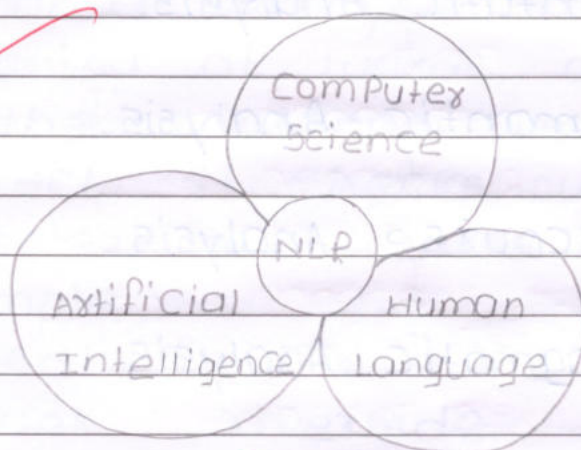
Roll No.: 14

Date: 13/9/2025

Q.1 What is NLP? Discuss different stages in NLP?

NLP stands for Natural Language Processing. It is a branch of Artificial Intelligence (AI) that focuses on enabling computers to understand, interpret, and generate human language in a meaningful way.

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Key points about NLP:

- 1] Combination of fields: It combines computer science, linguistics, and machine learning.
- 2] Works with natural language data like text or speech.
- 3] To help computers interact with humans naturally — similar to how humans communicate.

with each other.

Examples of NLP :

chatbots & virtual Assistants

Machine Translation

Sentiment Recognition

Text Summarization

Spam filtering in emails

Stages of NLP

Lexical Analysis

Syntactic Analysis

Semantic Analysis

Discourse Analysis

Pragmatic Analysis

1. ~~Synta~~ Lexical Analysis

It is the first stage in NLP. It is also known as morphological analysis. It consists of identifying and analyzing the structure of words

2. Syntactic Analysis

Syntactic analysis is the process of checking the sentence structure according to grammar rules.

It uses grammar rules, parts of speech, and parsing methods to analyze.

Example:

The boy is playing football → Correct structure.

Boy football the is playing → wrong structure.

3] Semantic Analysis

Semantic Analysis focuses on the meaning of words and sentences. Even if the sentence is grammatically correct, it checks whether the meaning is clear and makes sense.

Example:

He sat on the bank of the river →
bank = riverside

She deposited money in the bank →
bank = financial institution

4] Discourse Analysis

Discourse analysis studies how sentences are connected to form a meaningful paragraph or conversation.

Example:

Ravi bought a car. He drives it every day."

"He" refers to Ravi.

"It" refers to Car

5] Pragmatic Analysis

Pragmatic analysis finds the intended meaning of a sentence by considering the situation, real-world knowledge, & tone of the speaker.

Example:

"Can you open the window?" →
literally a question about ability, but
pragmatically it is a request.

Q.2 What are different types of ambiguity present in NLP?

In NLP, ambiguity means that a word phrase, or sentence can have more than one meaning.

Types of Ambiguity

1. Lexical Ambiguity

Lexical ambiguity occurs when a single word has multiple meanings. The correct meaning depends on the surrounding words (context).

Example : " He is sitting on the bank
" Bank " could mean the side of a
river or a financial institution.

2] Syntactic Ambiguity

Syntactic ambiguity occurs when the
structure or grammar of a sentence
allows multiple interpretations, even if the
words themselves are clear.

Example : " I saw the man with the
telescope "

Did I use the telescope to see the man?
or did the man have a telescope?

3] Semantic Ambiguity

Semantic ambiguity occurs when a
sentence has more than one meaning,
even though the grammar is correct.

It is about the meaning of the sentence
- or phrase, not the structure.

Example : " visiting relatives can be
boxing. "

Could mean relatives who visit are
boxing.

or the act of visiting relatives is
boxing.

4] Pragmatic Ambiguity

Pragmatic ambiguity occurs when the
intended meaning of a sentence depends

on the context, situation, or the speaker's intention. The literal meaning may not match the intended meaning.

Example: "Can you open the window?"
Literally, it asks if someone has the ability to open the window.
practically, it is a polite request to open it.

5] Discourse ambiguity

Discourse ambiguity occurs when it is unclear how sentences relate to each other, usually involving pronouns or references in a paragraph or conversation.

Example: "John told Tom he was late."
who was late — John or Tom

6] Anaphoric Ambiguity

Happens when a pronoun or reference is unclear because it points to an earlier word or phrase.

Example: "Ravi told Raj that he was late."
who is he — Ravi or Raj

Q.1 What is NLP ? Discuss different stages in NLP?

Definition:

Natural language Processing (NLP) is a subfield of Artificial Intelligence (AI) and computer science that focuses on enabling computers to understand, interpret, generate & interact with human language in a way that is both meaningful & useful. It bridges the gap between human communication (natural language like English, Hindi etc) and machine understanding.

From a linguistic perspective, NLP incorporates theories & principles of syntax (structure of sentence), semantics (meaning), morphology (word formation), phonetics (sound), pragmatics (context) to model language.

- Stages In NLP.

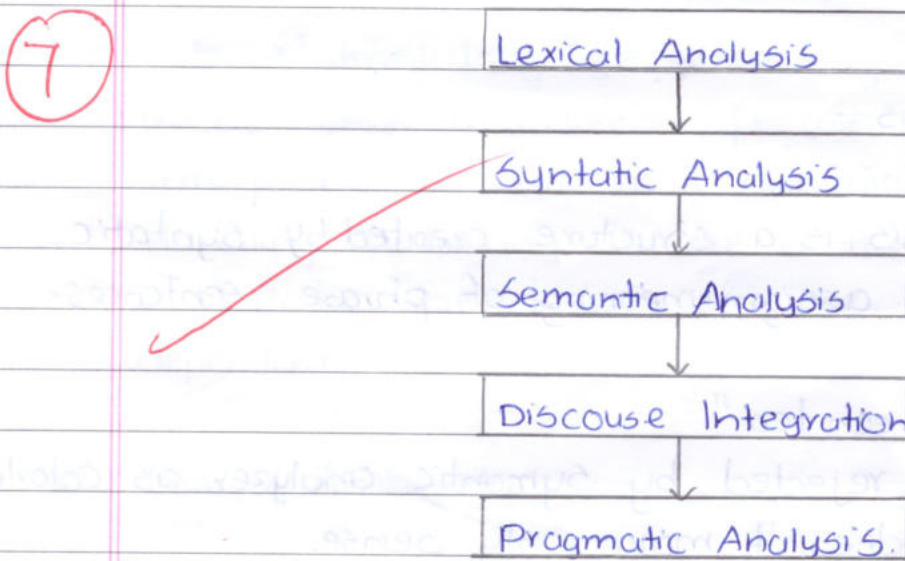


Fig. Stages in NLP

① Lexical Analysis -

- It is the First Stage in NLP. Also known as morphology.
- It consist of identifying and analyzing the struture of words.
- Lexicon of language means the collection of phrases and words in language.
- Lexical analysis is dividing whole chunk of text into words, sentence & paragraph.

② Syntatic Analysis -

- Syntatic analysis consist of analysis of words in the sentence for grammer & ordering words in a way that shows relationship amongs the words.
- For example,
"The school goes to boy" is rejected by english syntatic analyzer.

③ Semantic Analysis -

- Semantic analysis is a structure created by syntatic analyzer which assign meaning of phrase, sentences.
- For example,
"Colourless green tea"
This would be rejected by Symantic analyzer as colorless here, green doesn't make only sense.

④ Discourse Integration -

- The meaning of any sentence depends upon the meaning of sentence just before it. It also brings about the meaning of immediately succeeding sentence.

⑤ Pragmatic Analysis -

- Pragmatic analysis concerned with the overall communicative & social content & its effect on interpretation.

eg. Close the window? Should be as request instead of order.

Q2. What are the different types of ambiguity present in NLP?

→

In Natural language Processing (NLP), ambiguity arises when a sentence, phrase or word can be interpreted in more than one way.

Handling ambiguity is one of the biggest challenge in NLP because human language is complex & context dependent.

⑦ Lexical Ambiguity

- Lexical ambiguity occurs when single word has multiple meaning.

eg.

Bank → could mean river bank / financial bank

② Syntactic Ambiguity.

- Syntactic Ambiguity happen when a Sentence can have multiple possible parse trees (different grammatical structure).

eg.

- I saw the man with telescope.
- Meaning 1 - I used telescope to see man.
- Meaning 2 - I saw man who had a telescope

③ Semantic Ambiguity.

- A sentence can have multiple meanings even when the structure is clear.

example:

Chicken is ready to eat.

Mean 1 - The chicken is cooked & ready to be eaten.

Meaning 2 - The chicken itself is ready to eat something.

④ Pragmatic Ambiguity.

- Ambiguity caused by influence of context, speaker's intention, or world knowledge

eg.

Can you pass the salt?

Literal meaning - Asking if person is capable of passing salt.

Pragmatic meaning - A polite request to actually pass the salt.