Code No: 155CK **R18**

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
B. Tech III Year I Semester Examinations, March - 2024
NATURAL LANGUAGE PROCESSING
(Common to CSE, CSD)

Time: 3 Hours **Max. Marks: 75**

Note: i) Question paper consists of Part A, Part B.
ii) Part A is compulsory, which carries 25 marks. In Part A, Answer all questions.
iii) In Part B, Answer any one question from each unit. Each question carries 10 marks and may have a, b as sub questions.

PART – A

(25 Marks)

1.a)	What is Surface Structure in Word Processing?	[2]
b)	What are the levels in Natural Language Processing?	[3]
c)	Describe the components in words.	[2]
d)	Define in Parsing in NLP.	[3]
e)	Write the Ambiguities in Sentence Parsing.	[2]
f)	Translate the following sentences into syntax structure Time flies like a Butterfly	[3]
g)	What do you mean by Tree Banks?	[2]
h)	What Categories of Semantics?	[3]
i)	What is Anaphora Resolution?	[2]
j)	What is Bigram Method in N-gram Models?	[3]

PART – B

(50 Marks)

2. List and explain the challenges involved in finding the structure of words. [10]

OR

3. Describe in detail about the complexity of the approaches in finding the structure of the documents. [10]

4. Explain tree banks and its role in parsing a natural language. [10]

OR

5. Describe in detail about the various linguistic issues in syntax analysis of natural language. [10]

6. Given is "There is a train on platform 6.
Its Destination is Hyderabad.
There is another train is in platform 7.
Its destination is Delhi.
Write Procedure for Anaphora Resolution for this example. [10]

OR

7.a) Draw the syntax structure for the sentence
"Time flies like a Banana"

b) Describe the concept of semantic parsing with an example. [5+5]

8. Give an example solution to solve the anaphora resolution problem. [10]

OR

9. How many kinds' predicates to handle basic statement give one example? [10]

10. What is the software used for the predicate Structure? Explain with an example. [10]

OR

11. Consider the following training set and implement Bi-gram model to calculate the probability of given Test sentence.

Training set:

He said thank you.
He said bye as he walked through the door.
He went to San Diego

Test sentence: He thanked and walk through the door. [10]

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