

PREVIOUS QUESTION PAPER

**Q.P Code:** AM3104PC

Hall Ticket No.: 

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**NARSIMHA REDDY ENGINEERING**

MODEL QUESTION PAPER

**COLLEGE(UGC AUTONOMOUS)**

**III B.Tech I Semester (NR20) Regular Examination, January 2023**

**Natural language processing  
(CSE / AI&ML)**

Time :3 hours

Maximum marks: 75

- Note:**
- This question paper contains two parts A and B
  - Part A is compulsory which carries 25 marks (1<sup>st</sup> 5 sub questions are one from each unit carry 2 Marks each & Next 5 sub questions are one from each unit carry 3 Marks). Answer all questions in Part A
  - Part B Consists of 5 Units. Answer any one full question from each unit. Each question carries 10 Marks and may have a, b sub questions

**Part-A (25 Marks)**  
**Answer all questions**

Q.No	Question	M	B L	CO	PO
1)	a. List the methods of Word components	2	L1	CO1	PO1,PO2
	b. What is a Token	2	L1	CO1	PO1,PO2
	c. What is CFG	2	L1	CO2	PO3,PO4
	d. What is Treebank?	2	L1	CO2	PO3,PO4
	e. What is Semantic Interpretation	2	L1	CO3	PO3,PO4. PO5
	f. List the semantic rules	3	L1	CO3	PO3,PO4. PO5
	g. Define argument structure	3	L1	CO4	PO3,PO4
	h. Define structure management	3	L1	CO4	PO3,PO4

i.	Define reference resolution	3	L1	CO5	PO3,PO5
j.	What is the need of language model adaptation	3	L1	CO5	PO3,PO5

**Part-B**  
**Answer any five questions**  
**All Questions carry equal Marks**

**50 Marks)**

Q.No	Question	M	BL	CO	PO
<b>UNIT-I</b>					
2)	a. Explain the complexity approaches.	5	L2	CO1	PO1,PO2
	b. Explain the Performances analysis	5	L2	CO1	PO1,PO2
<b>OR</b>					
3)	a. Explain in detail about Morphological models.	5	L3	CO1	PO1,PO2
	b. Explain Generative Sequence classification methods	5	L2	CO1	PO1,PO2
<b>UNIT-II</b>					
4)	a. Construct Shift reduce parsing  N-> N 'and' N N->N 'or' N  N->'a' 'b' 'c'	5	L2	CO2	PO3,PO4
	b. Explain data-driven mechanism	5	L2	CO2	PO3,PO4
<b>OR</b>					
5)	a. Explain the models of ambiguity resolution	5	L3	CO2	PO3,PO4
	b. Find out the probability for the grammar  S ->NP VP [0.80] NP->Det N [0.3] VP->V NP [0.20]	5	L3	CO2	PO3,PO4

		V->includes [0.05] Det->the [0.4] Det->a [0.4] N->meal [0.013] N->flight [0.02] for the input string “ The flight includes a meal”				
<b>UNIT-III</b>						
6)	a.	Describe Predicate Argument structure.	5	L2	CO3	PO3,PO4 .PO5
	b.	Explain Lesk algorithm.	5	L2	CO3	PO3,PO4 .PO5
<b>OR</b>						
7)	a.	What is Rule based system for word sense disambiguation.	5	L1	CO3	PO3,PO4 .PO5
	b.	What is Supervised system for word sense disambiguation.	5	L1	CO3	PO3,PO4 .PO5
<b>UNIT-IV</b>						
8)	a.	What are the syntactic representations.	5	L1	CO4	PO3,PO4
	b.	Explain Phrase Structure Grammar.	5	L4	CO4	PO3,PO4
<b>OR</b>						
9)	a.	Explain the meaning representation systems	5	L3	CO4	PO3,PO4
	b.	Describe the rule based system in predicate structure.	5	L4	CO4	PO3,PO4
<b>UNIT-V</b>						
10)	a.	Discuss about language model adaptation	5	L2	CO5	PO3,PO5
	b.	Illustrate spoken versus written languages	5	L4	CO5	PO3,PO5
<b>OR</b>						
11)	a.	Describe multilingual language modeling	5	L2	CO5	PO3,PO5
	b.	Describe cross lingual language modeling.	5	L2	CO5	PO3,PO5

**M** – Marks    **CO** – Course Outcomes    **PO** – Program Outcomes

**BL** – Bloom’s Taxonomy Levels (**L1**–Remembering, **L2**–Understanding, **L3**–Applying,**L4**–Analyzing, **L5**–Evaluating, **L6**–Creating)