Model Question paper

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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 (1st 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	BL	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

Q.No		Question	M	BL	CO	PO
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   **50 Marks)**

Answer any five questions
All Questions carry equal Marks

Q.No		Question	M	BL	CO	PO
		UNIT–I				
2)	a.	Explain the complexity approaches.	5	L2	CO1	PO1,PO2
	b.	Explain the Performances analysis	5	L2	CO1	PO1,PO2
		OR				
3)	a.	Explain in detail about Morphological models.	5	L3	CO1	PO1,PO2
	b.	Explain Generative Sequence classification methods	5	L2	CO1	PO1,PO2
		UNIT–II				
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
		OR				
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

			M	BL	CO	PO
		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"				
UNIT–III					
6)	a.	Describe Predicate Argument structure.	5	L2	CO3	PO3,PO4.PO5
	b.	Explain Lesk algorithm.	5	L2	CO3	PO3,PO4.PO5
OR					
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
UNIT–IV					
8)	a.	What are the syntactic representations.	5	L1	CO4	PO3,PO4
	b.	Explain Phrase Structure Grammar.	5	L4	CO4	PO3,PO4
OR					
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
UNIT–V					
10)	a.	Discuss about language model adaptation	5	L2	CO5	PO3,PO5
	b.	Illustrate spoken versus written languages	5	L4	CO5	PO3,PO5
OR					
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)