Seat No.:	Enrolment No

GUJARAT TECHNOLOGICAL UNIVERSITY MCA - SEMESTER-V • EXAMINATION – SUMMER 2017

Sul Tir	bject ne: 0	t Code: 2650014 Date:08/06/ 2017 t Name: Language Processing (LP) 02.30 PM TO 05.00 PM Total Marks: 70	
Ins	1. 2.	tions: . Attempt all questions Make suitable assumptions wherever necessary Figures to the right indicate full marks.	
Q.1	(a)	Discuss in details with examples: (a) Pronoun and its types (b) Properties of verbs	07
Q.2	(b) (a) (b)	Explain Syntax, Semantics & Pragmatics. Describe fore-tracking parser & Backtracking Parser? Natural Language Understanding requires a capability to represent and reason about knowledge of the word? Justify? OR	07 07 07
	(b)	Write an algorithm for parsing a finite-state transducer using the pseudo-code. Explain the algorithm with an example. Also give the merits and demerits of this algorithm.	07
Q.3	(a) (b)	How the natural language processing systems are evaluated? Explain. Differentiate between natural language processing and natural language understanding.	07 07
Q.3	(a) (b)	OR Discuss the following: (a) Simplification Rules (b) Translation Rules Write an algorithm for converting an arbitrary context- free grammar into Chomsky normal form. Explain it with a suitable example.	07
Q.4	(a) (b)	Describe the following with suitable example: (a) Reference resolution. (b) Elements of a language. Give an algorithm for pronoun resolution and explain it with an example.	07 07
Q.4	(a) (b)	OR Give an algorithm for pronoun resolution and explain it with an example. Describe the following with suitable example: (a)Probabilistic Models (b)N-Grams	07 07
Q.5	(a)	Describe the following with suitable example: (a)English Word Classes (b)POS Tagging	07
	(b)	Explain various Context-Free Rules & Trees and also Explain about Sentence- Level Constructions. OR	07
Q.5	(a) (b)	What do you mean by Semantic Analysis & Lexical Semantics? Write short notes on the following: (a) Coherence (b) Goals of NLP (c) Co-reference (d) Applications of NLP	07 07
