PAPER ID-420218

Roll No: | | | | | | | | | | | | |

BTECH
(SEM VIII) THEORY EXAMINATION 2021-22
NATURAL LANGUAGE PROCESSING

Time: 3 Hours   *Total Marks: 100*

Note: Attempt all Sections. If you require any missing data, then choose suitably.

SECTION A

1. **Attempt *all* questions in brief.**   **10*2=20**

Q.no	Questions	Marks	CO
(a)	What do you mean by Semantics in Natural Language Processing?	2	2
(b)	Define the term Natural Language.	2	1
(c)	Discuss about the concept of knowledge.	2	2
(d)	What is the concept of Parsing?	2	3
(e)	What are the Applications of Natural Language Processing (NLP)?	2	1
(f)	Briefly define Probabilistic Language Processing (PLP).	2	5
(g)	What do you mean by Grammars for Natural Language?	2	4
(h)	What is the concept of Top-Down and Bottom-Up Parsers?	2	3
(i)	What is the need of Verb Phrases in Natural Language Processing?	2	4
(j)	What do you mean by the Ambiguity?	2	5

SECTION B

2. **Attempt any *three* of the following:**   **10*3 = 30**

Q.no	Questions	Marks	CO
(a)	Discuss about the Statistical Methods under the Ambiguity Resolution.	10	5
(b)	Describe in detail about the Machine Translation.	10	2
(c)	Describe Feature Systems and Augmented Grammar under Grammars and Parsing.	10	3
(d)	Describe in detail about the Movement Phenomenon in Language.	10	4
(e)	What is the Concept of Evaluating Language Understanding Systems?	10	1

SECTION C

3. **Attempt any *one* part of the following:**   **10*1 = 10**

Q.no	Questions	Marks	CO
(a)	Discuss in brief about the concept of Probabilistic Context-Free Grammars.	10	5
(b)	Discuss about the following: (i) Basic Feature system for English. (ii) Morphological Analysis.	10	2

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4. **Attempt any *one* part of the following:** 10 *1 = 10

Q.no	Questions	Marks	CO
(a)	Discuss in detail about the Different levels of Language Analysis.	10	1
(b)	Discuss about the following: (i) Transition Network Grammars. (ii) Top- Down Chart Parsing.	10	3

5. **Attempt any *one* part of the following:** 10*1 = 10

Q.no	Questions	Marks	CO
(a)	Describe in detail about Handling questions in Context-Free Grammars.	10	4
(b)	Discuss in brief about the Word senses and Ambiguity under the Ambiguity Resolution.	10	5

6. **Attempt any *one* part of the following:** 10*1 = 10

Q.no	Questions	Marks	CO
(a)	Discuss about the database interface under the Natural Language Understanding.	10	2
(b)	Mention about the Organization of Natural language Understanding Systems.	10	1

7. **Attempt any *one* part of the following:** 10*1 =10

Q.no	Questions	Marks	CO
(a)	Describe about the Augmented Transition Networks.	10	3
(b)	Describe in detail about the Human preferences in Parsing.	10	4