PAPER ID-310119

Subject Code: RCAE22

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

MCA

(SEM-V) THEORY EXAMINATION 2020-21

NATURAL LANGUAGE PROCESSING

Time: 3 Hours ***Total Marks: 70***

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. 2 x 7 = 14

a.	What do you mean by Language understanding?
b.	What is Language modeling?
c.	Define the term knowledge representation.
d.	What is machine translation?
e.	What is Augmented transition network?
f.	What do you mean by Auxiliary Verbs?
g.	Define the term Part-of-Speech tagging.

SECTION B

2. Attempt any *three* of the following: 7 x 3 = 21

a.	What is language processing system? Explain with an example.
b.	Describe the role of NLP language interpretation.
c.	How the knowledge is represented using semantic networks? Also explain how information is deduced from semantic networks.
d.	What are the different machine learning methods used in language translation? Explain any one method in detail.
e.	Write short notes on i) Probabilistic Context-Free Grammar ii) Different levels of Language Analysis

SECTION C

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

(a)	Briefly explain “Evaluating Language Understanding Systems”.
(b)	Discuss the applications of NLP in detail.

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

(a)	Define the term semantics. What are the different techniques for the semantic analysis of a sentence?
(b)	Write any five-machine translation system. Write the main features of these systems.

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

(a)	Briefly explain Morphological analysis with an example.
(b)	What are the issues in parsing? Describe various techniques used for parsing with suitable example.

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

(a)	Explain human preferences in Parsing.
(b)	Describe in detail about Verb Phrases.

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

(a)	Write short notes on i) Probabilistic Language Processing ii) Word senses
(b)	What are the different types of Ambiguities? Explain any one in detail