

14/12/21

Program: Master of Computer Applications

Curriculum Scheme: MCA 2 year Course

Examination: MCA <First Year> SEMESTER <II>

Course Code: MCAE251 and Course Name: Natural Language Processing

Time: 2 HRS

Max. Marks: 80

Section I - MCQS (40 Marks) – 40 Minutes

Section II – Subjective (40 Marks) – 80 Minutes

The timings

If the Examination Time is 10:00 am to 12:00 noon

Section I – 11:00 am – 11:40 am

Section II – 11:40 am – 1:00 pm

SECTION II

Q2. Solve any two questions out of three which carry 10 marks each respectively. - 20 marks

- A. What is the role of FSA in morphological analysis? Explain FST in detail.
- B. Explain rule based and stochastic POS tagging with example.
- C. Explain the stages of NLP in detail.

OR

Q3. -Solve any two questions out of three which carry 10 marks each respectively- 20 marks

A. Consider the following grammar,

- | | |
|---------------|-------------------|
| 1. S → NP VP | 5. NAME → John |
| 2. VP → V NP | 6. V → ate |
| 3. NP → NAME | 7. ART → an the |
| 4. NP → ART N | 8. N → apple |

Derive the sentence "John ate an apple" using top down or bottom up parsing. Compare Top down parsing with Bottom up parsing.

- B. Define the term sentiment analysis. Explain Aspect based sentiment analysis in details.
- C. Explain CFG with suitable example. Describe following potential problem in CFG such as
 - 1) Agreement 2) Sub Categorization 3) Movement

