PD267

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B.E. (Computer Engineering) (Insem)
NATURAL LANGUAGE PROCESSING
(2019 Pattern) (Semester - VIII) (410252A) (Elective - V)

Time : 1 Hour]　　　　　　　　　　　　　　　　　　　　*[Max. Marks : 30*
Instructions to the candidates:
　　1)　Answer Q1 or Q2, Q3 or Q4.
　　2)　Figures to the right indicate full marks.
　　3)　Neat diagrams must be drawn wherever necessary.
　　4)　Assume suitable data, if necessary.

Q1) a)　Describe different stages of Natural Language Processing.　　**[7]**

　　　b)　Explain in detail text processing in Natural Language Processing.　　**[8]**

OR

Q2) a)　Differentiate between programming languages and natural languages. **[4]**

　　　b)　Discuss the challenges of Natural Language Processing.　　**[7]**

　　　c)　Differentiate between stemming and lemmatization.　　**[4]**

Q3) a)　What is morphology? Explain Derivational and Inflectional morphology in detail with suitable examples.　　**[7]**

　　　b)　Construct the possible parse trees for the sentence "astronomers saw the stars with ears" and comment on the ambiguity associated with it. (Assume suitable grammar).　　**[8]**

OR

Q4) a)　Illustrate the working of FST for morphological analysis with an example.　　**[7]**

　　　b)　Explain with suitable examples following relationship between word meanings :　　**[8]**
　　　　　i)　Homonymy
　　　　　ii)　Polysemy
　　　　　iii)　Synonymy
　　　　　iv)　Hyponymy

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