[5059]-673

B.E. (Information Technology)

NATURAL LANGUAGE PROCESSING

(2012 Pattern) (Elective - II) (End Semester)

Time : 2 ½Hours]   *[Max. Marks : 70*

Instructions to the candidates:-

1) *Solve any 1 out of Q.1or Q.2 and any 1 out of Q.3 or Q.4 and*
2) *Solve any 1 out of Q.5 or Q.6 and any 1 out of Q.7 or Q.8 and any 1 out of Q.9 or Q.l0.*
3) *Draw neat diagrams and assume suitable data wherever necessary.*
4) *Figures to the right indicate full marks.*

Q1) Explain with a diagram organization of a natural language understanding system.
[10]

OR

Q2) Describe all the levels of language understanding in natural language processing system. **[10]**

Q3) a) Differentiate between the depth-first and breadth-first top down parsing **[5]**

b) Describe simple top-down parsing algorithm. **[5]**

OR

Q4) a) Describe augmented grammar use in natural language processing? **[5]**

b) Describe the Person and Number features used in natural language processing. **[5]**

Q5) a) Describe lexical probabilities and techniques of obtaining them in natural language processing. **[10]**

b) Describe logical form as an intermediate representation in natural language processing with a diagram. **[8]**

OR

P.T.O.

Q6) a) Draw and explain shift-reduce parsing in natural language processing. **[10]**

b) Explain the human preferences in encoding uncertainty during parsing. **[8]**

Q7) a) Explain lexical resource wordnet used in natural language processing. **[8]**

b) Describe probabilistic parsing in natural language processing . **[8]**

OR

Q8) a) Explain the use of semantic web ontology. **[8]**

b) Explain word sense disambiguation in natural language processing. **[8]**

Q9) a) Explain semantic web search with an example. **[8]**

b) How is natural language processing useful in an automatic text clustering problem? **[8]**

OR

Q10) a) Describe automatic machine translation problem. **[8]**

b) Explain the machine translation system evaluation tools. **[8]**

❀ ❀ ❀