Total No. of Questions :6] BE INSEM AUG 2015 SEAT No. :

P4981 [Total No. of Pages :2

BE/In Sem. - 83
B.E.(Computer)
MULTIDISCIPLINARY NLP
(2012 Course) (Elective - II) (Semester -I)

Time : 1 Hour] *[Max. Marks : 30*

Instructions to the candidates:

1) *Answer Q1 or Q2, Q3 or Q4, Q5 or Q6.*
2) *Neat diagrams must be drawn wherever necessary.*
3) *Figures to the right indicate full marks.*
4) *Use of logarithmic tables slide rule, Mollier charts, electronic pocket calculator and steam tables is allowed.*
5) *Assume suitable data, if necessary.*

Q1) a) What is NLP? What makes NLP challenging. **[2]**

b) Define grammer and draw parse tree for the following sentence " I saw a boy with a goggle". **[4]**

c) Explain different stages of natural language processing. **[4]**

OR

Q2) a) What do you mean by lexical knowledge structures. Name any three lexical knowledge networks available and list their features. **[6]**

b) What is ambiguity in NLP? Explain ambiguity in all steps of NLP by example. **[4]**

Q3) Define **[10]**

a) Entropy of a Random variable

b) Perplexity

c) Entropy rate

d) Stationary (stochastic process)

e) Cross entropy

OR

P.T.O.

Q4) a) What is machine translation? Describe different approaches of machine translation. **[5]**

b) Write short notes on stochastic tagging. **[5]**

Q5) Write short notes on: **[10]**

a) Forward backward probability

b) Hidden Markov model

OR

Q6) a) Explain in brief viterbi algorithm. **[6]**

b) Finite state morphological parsing. **[4]**

ع ع ع