

**M. TECH.-III (INFORMATION TECHNOLOGY) (CBCS – 2015
COURSE) : WINTER - 2017**

SUBJECT : ELECTIVE – I: NATURAL LANGUAGE PROCESSING & UNDERSTANDING

Day : **Tuesday**
Date : **16/01/2018**

W-2017-2894

Time : **11.00 AM TO 02.00 PM**
Max. Marks : 60

N.B.:

- 1) All questions are **COMPULSORY**.
 - 2) Figures to the right indicate **FULL** marks.
 - 3) Answers to both the sections should be written in **SEPARATE** answer books.
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SECTION – I

Q.1 What is natural language generation? Explain in detail. **[10]**

OR

Q.1 Explain the process of natural language processing in detail. **[10]**

Q.2 What are different techniques of machine translation? Explain each in brief. **[10]**

OR

Q.2 Explain Chomsky Normal Form (CNF) in detail. **[10]**

Q.3 What is cross-entropy? Explain in detail. **[10]**

OR

Q.3 Explain Markov models in detail. **[10]**

SECTION – II

Q.4 Explain the probabilistic Finite State Automata (FSA) in detail. **[10]**

OR

Q.4 What are different uses of Hidden Markov Model (HMM)? Explain. **[10]**

Q.5 Explain the applications of Maximum Entropy Classifiers. **[10]**

OR

Q.5 What is Noun Phrase Segmentation? Explain in detail. **[10]**

Q.6 Explain the following terms: **[10]**

a) Alignment

b) Language Generation w.r.t natural language processing.

OR

Q.6 Explain the probabilistic model of machine translation. **[10]**

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