5. a) State your idea on 'Hidden Markov Model'.

   b) What is meant by 'POS' tagging? Discuss properties of rule based POS tagging.   5+3+2

6. a) What are different 'Text Classification' methods?

   b) Discuss briefly 'Naïve Bayes' text classification.

   c) State briefly your idea on 'sentiment analysis'.
                                                    4+3+3

7. Write short notes on *any two* of the following: 5×2

   a) N-gram

   b) WordNet

   c) Q = {S, NP, N, VP, V, ART} - explain.

   d) Lexical semantics.

MASTER OF LIBRARY AND INFORMATION SCIENCE
(DIGITAL LIBRARY) EXAMINATION, 2022

(2nd Year, 2nd Semester)

NATURAL LANGUAGE PROCESSING

PAPER – MLDL-16D

Time : Two hours   Full Marks : 50

Answer *any five* questions.

1. What is meant by 'Natural Language Processing'? Discuss "Structural Representation", as proposed by Noam Chomsky.   3+7

2. State your idea on the following relations of 'Tokenization': $2\frac{1}{2}$ ×4=10

   a) Chinese Segmentation

   b) Normalization

   c) Name Entity Recognition

   d) Minimum Distance

3. Describe the different types of morpheme. What is meant by 'morphological parsing'? Distinguish between 'morph' and 'allomorph'.   5+3+2

4. Define 'Context Free Grammar' (CFG). Briefly discuss its Features and components. Classify CFG according to Chomsky.   3+(2+2)+3

[Turn over