

(FOR THE CANDIDATES ADMITTED

22UAI516

DURING THE ACADEMIC YEAR 2022 ONLY)

REG.NO. :

N.G.M.COLLEGE (AUTONOMOUS) : POLLACHI

END-OF-SEMESTER EXAMINATIONS : MONTH 2024-

BSc CS (AI & ML)

MAXIMUM MARKS: 50

SEMESTER-V

TIME : 3 HOURS

**PART – III**

**22UAI516– NATURAL LANGUAGE PROCESSING**

**SECTION – A**

**(10 X 1 = 10 MARK**

**ANSWER THE FOLLOWING QUESTIONS.**

**(K1)**

1. What is the field of Natural Language Processing (NLP)? \_\_\_\_\_
  - a) Computer Science
  - b) Artificial Intelligence
  - c) Linguistics
  - d) All of the mentioned
2. In the word "unhappiness," which part is the prefix? \_\_\_\_\_
  - a) happy
  - b) ness
  - c) un
  - d) unhappiness
3. In semantic analysis, "ontologies" are used to: \_\_\_\_\_
  - a) Create language models
  - b) Define relationships among concepts and categories
  - c) Process raw text data
  - d) Generate random sentences
4. Which of the following is a common application of NLG? \_\_\_\_\_
  - a) Chatbots
  - b) Automated report generation
  - c) Text summarization
  - d) All of the above
5. What is "relation extraction" in the context of Information Extraction? \_\_\_\_\_
  - a) Identifying the relationships between named entities in a text
  - b) Extracting quantitative data from text
  - c) Summarizing the main ideas of a document
  - d) Finding synonyms for words in a text

**ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES**

**(K2)**

6. What is NLP?
7. Define Context Free Grammar.
8. What is Semantic Analysis?
9. What is meant by Machine Translation?
10. What is the use of Information retrieval?

Ethical paper

(CONTD ... 2)

**SECTION – B****(5 X 3 = 15 MARKS)****ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.**

11. a) List the applications of NLP. (K3)  
(OR)  
b) Explain Language Modeling. (K3)
12. a) Describe Regular Expressions (K3)  
(OR)  
b) Illustrate Parsing. (K3)
13. a) Explain ambiguity. (K3)  
(OR)  
b) Describe Reference Resolution. (K3)
14. a) Classify the various application of NLG. (K3)  
(OR)  
b) Analyze the problems in Machine Translation. (K3)
15. a) Explain the Named Entity Recognition. (K3)  
(OR)  
b) Demonstrate Statistical Translation. (K3)

**SECTION – C****(5 X 5 = 25 MARKS)****ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.**

16. a) Explain the factors and methods involved in Processing Indian Languages. (K4)  
(OR)  
b) Elucidate the grammar Based Language Modeling. (K4)
17. a) Discuss Morphological Parsing Spelling Error Detection and Correction. (K4)  
(OR)  
b) Illustrate the uses and importance of Context Free grammar. (K4)
18. a) Elaborate the importance of Semantic Analysis. (K4)  
(OR)  
b) Analyze the Word Sense Disambiguation. (K5)
19. a) Illustrate the architecture of NLG Systems. (K5)  
(OR)  
b) Categorize the Characteristics of Indian Languages. (K5)
20. a) Elucidate the issues involved in Machine Translation. (K5)  
(OR)  
b) Explain the Phrase-Based Translation and Synchronous Grammars. (K5)

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