



**The Yenepoya Institute of Arts, Science, Commerce and Management**  
A Constituent Unit of Yenepoya (Deemed to be University)

**III Semester Second Internal Examination - October 2024**  
**BCA/BSC304 - Introduction to Artificial Intelligence(All batches)**

**Duration: 1 Hour**

**Max Marks: 30 marks**

**Section A**

**Answer any FOUR of the following questions**

**(4 x 5 =20)**

1. Describe NLP. Explain the steps in it.
2. Explain the AI Knowledge Cycle in detail.
3. Explain the five types of Knowledge Representation with example.
4. What is Propositional Logic? Explain the logical connectives.
5. What is First Order Logic? Describe the notion of universal and existential quantification. How do these quantifiers affect the meaning of a statement?
6. Explain parsing in NLP. Explain its techniques and applications.

**Section B**

**Answer any ONE of the following.**

**(1 x 10 =10)**

7. Explain the concept of knowledge representation in AI. Explain various techniques and issues related to knowledge representation.
8. Construct a truth table for the following compound proposition:

a.  $(p \wedge q) \vee \neg r$

b.  $(p \rightarrow q) \vee (\neg q \wedge r)$

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