

## HOME ASSIGNMENT (2023 Batch)

**BACHELOR OF COMPUTER APPLICATION (BCA) SIXTH SEMESTER  
CENTRE FOR DISTANCE AND ONLINE EDUCATION, DIBRUGARH UNIVERSITY  
(Full Marks 30 for each course)**

(ALL THE QUESTIONS GIVEN BELOW ARE COMPULSORY AND CARRY 5 MARKS EACH)

### **BCA -601 (Introduction to Artificial Intelligence)**

#### **ASSIGNMENT-I**

**Total marks : 15**

1. Give some real-world applications of AI.
2. What are the types of AI?
3. Describe how branch and bound technique could be used to find the shortest solution to a water jug problem.

#### **ASSIGNMENT-II**

**Total marks : 15**

1. Explain the different types of searches in AI.
2. Describe simple hill climbing algorithm.
3. What is Predicate Logic in AI ? Explain the basic components.

### **BCA -602 (System Software)**

#### **ASSIGNMENT-I**

**Total marks : 15**

1. Describe Pass I of the assembler
2. Write short notes on
  - a. Overlays
  - b. Macro definition and call
3. Explain the architecture of 8086

#### **ASSIGNMENT-II**

**Total marks : 15**

1. Differentiate between static linking and dynamic linking
2. What is loader? List types of loader. Explain each loader in brief.
3. Explain intermediate code generation phase.

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