Roll No. ....

Total No. of Questions : 7   **Total No. of Pages : 01**

B.C.A. (Sem-6th)

ARTIFICIAL INTELLIGENCE

Subject Code : BC-601

Paper ID : [B0223]

Time : 03 Hours   **Maximum Marks : 60**

INSTRUCTION TO CANDIDATES :
1. **SECTION-A is COMPULSORY.**
2. **Attempt any FOUR questions from SECTION-B.**

SECTION-A   **(10 × 2 = 20 Marks)**

1. Write a short note on :

   (a) List various problems of Artificial Intelligence.

   (b) What is expert system ? List any three expert systems.

   (c) What are various issues in design of search program ?

   (d) Define problem as state space search.

   (e) What is heuristics search ?

   (f) What is ATN ?

   (g) Illustrate frame problem with example.

   (h) What is morphological analysis ? Explain.

   (i) What is meant by partitioned semantic nets ?

   (j) Define CYCL.

SECTION-B   **(4 × 10 = 40 Marks)**

2. What is AI ? What are its applications ? Explain various underlying assumptions of AI.

3. Explain the following :

   (a) Problem Characteristics   (b) Production Systems.

4. Discuss various approaches to knowledge representation with their advantages and disadvantages.

5. What is instance ? Explain how instance is represented. Also discuss IS-A relationship.

6. Write notes on the following : (a) Script   (b) CYC.

7. Explain conceptual dependency by taking suitable examples.