



**UTTARAKHAND OPEN UNIVERSITY, HALDWANI (NAINITAL)**  
उत्तराखण्ड मुक्त विश्वविद्यालय, हल्द्वानी (नैनीताल)

**BCA 3<sup>RD</sup> YEAR 6<sup>TH</sup> SEMESTER ASSIGNMENT**

*Last Date of Submission: 15- May-2014*

**Course Title:** Artificial Intelligence

**Course Code:** BCA-21

**Year:** 2013-14

**Maximum Marks:** 40 Marks

**Section 'A' contains 08 short answer type questions of 5 marks each. Learners are required to answers 4 questions only. Answers of short answer-type questions must be restricted to 250 words approximately.**

1. What is Production system? Explain.
2. What is means-ends analysis? Explain.
3. What is Predicate Logic? Explain.
4. Briefly describe the meaning of knowledge representation and knowledge acquisition.
5. What is forward versus backward reasoning? Explain.
6. What do you mean by logics for non-monotonic reasoning? Explain.
7. What is probability and Baye's theorem? Explain.
8. What is a Bayesian network? Explain.

**Section 'B' contains 04 long answer-type questions of 10 marks each. Learners are required to answers 02 questions only.**

1. What are the most important areas where Artificial Intelligence is applied? What do you understand by state space search in Artificial Intelligence?
2. What are levels of knowledge used in language understanding? What are the general approaches to Natural Language understanding?
3. How do you differentiate between an 'Informed Search' method and an 'Uninformed Search' method? Discuss heuristic search as a method of solving problems?

4. Compare merits and demerits of search tree and search graph in respect of representation of search problem. Explain depth first search implementation.

