BACHELOR IN INFORMATION TECHNOLOGY (BIT)

Term-End Practical Examination

00467

June, 2010

CSI-23P : TECHNIQUES OF ARTIFICIAL INTELLIGENCE

Time allowed : 1 hour

Maximum Marks : 30
(Weightage : 15%)

Note : There are **two** questions of **10** marks each in this paper. Both are **compulsory**. Remaining **10** marks are for *viva-voce*.

1. Write a function called 'Min–Max' which reads a list of integers and then returns a list **10** of two integers, the first and second elements of which are respectively the minimum and the maximum of the elements in the list.

    For example,

    (Min–Max   '(5   3   −8   7   11   2))

    returns the list

    (−8   11)

    Implement the above–mentioned function in LISP, PROLOG or in C programming language.

2. Write a non–recursive function that reads a positive integer and returns a list of its **10** prime factors (without repetitions) in increasing order.

    For example, if the program reads the integer 72, then it returns (2   3).

    Implement the above–mentioned function in LISP, PROLOG or in C programming language.