

Con. 2751-08.

(REVISED COURSE)

CO-3397

(3 Hours)

[Total Marks : 100

N.B. : (1) Question No. 1 is **compulsory**.

(2) Attempt any **four** questions from the remaining **six** questions.

1. (a) What do you mean by PEAS ? Explain the properties of task environment. 10
(b) Explain various Methods of Knowledge representation with examples. 10
2. (a) Explain General Ontology with reference to measures, composite objects, events, times, intervals with suitable examples. 10
(b) How planning problem is represented ? Explain with suitable example. 10
3. (a) Prove that A* search algorithm is complete and optimal among all search algorithms. 10
(b) How planning problem is represented ? Explain with suitable example. 10
4. (a) Explain components and structure of an Expert system. 10
(b) Give the technical steps for designing and implementing the Medical Diagnosis System. Assume required data and specify same. 10
5. (a) Draw and explain block diagram of General Learning Model and explain various factors affecting learning performance in details. 10
(b) What is AI ? Explain the components of AI with suitable block diagram. 10
6. The law says that it is a crime for an American to sell weapons to hostile nations. The country Nono, an enemy of America has some missile; all of its missiles were sold to it by Colonel West, who is an American. 20
Using first order logic prove that Colonel West is a criminal.
7. Write a notes on the following (any **two**) :- 20
 - (a) Types of Communicating Agents
 - (b) Perception
 - (c) Natural Language Processing
 - (d) Multilayered feed forward networks.