

Roll No .....

## IT-7005 (2) (CBGS)

### B.E. VII Semester

Examination, November 2019

## Choice Based Grading System (CBGS)

### Artificial Intelligence (AI)

Time : Three Hours

Maximum Marks : 70

- Note:** i) Attempt any five questions.  
ii) All questions carry equal marks.

1. a) Explain the A\* algorithm with suitable example.  
b) What is Artificial Intelligence? What are the various application of Artificial Intelligence.
2. a) Define production system? Also, give its types and characteristics.  
b) Explain Hill Climbing Algorithm with its limitations.
3. a) What are the characteristics of a good knowledge representation technique? Explain each of them in brief.  
b) Explain propositional knowledge with suitable examples. Compare it with predicate knowledge.
4. a) Describe briefly using example monotonic and non monotonic reasoning.  
b) Write a script for super market shopping as knowledge representation. Also explain the concept of frames.

5. a) Explain Bay's Theorem? Show how it is useful to handle uncertain data.  
b) Explain the concept of forward and backward reasoning with the help of example.
6. a) Explain alpha-beta search procedure. How to use in tic-tac-toe game.  
b) Explain block world problem in robotics with examples.
7. a) What do you understand by Neural Network? Discuss the application of neural network.  
b) What is expert system? Discuss its characteristics and applications.
8. a) Give a brief note on natural language processing. Also discuss its application area.  
b) What is learning? Explain various techniques being used in learning.

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