

Roll No

IT-7005 (2) (CBGS)**B.E. VII Semester**

Examination, November 2018

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) Consider trying to solve the 8 puzzle using hill climbing.
Find a heuristic function that makes this work?

Start			Goal		
1	2	3	1	2	3
8	5	6	4	5	6
4	7		7	8	

- b) Give an example of a problem for which breadth first search would work better than depth first search.
2. a) What are heuristics and what is their importance? Why heuristic search is better than blind search?
b) Solve the water jug problem. Give state space for this problem and also discuss one control structure to solve this problem. <https://www.rgpvonline.com>
3. a) What is inferential knowledge and procedural knowledge?
b) Explain following terms:
i) Theorem proving
ii) Inferencing

4. a) Using resolution method, solve the following logic problem.
i) Some patients like all doctors
ii) No patient likes any quake
iii) Therefore, no doctor is a quake
b) Explain scripts with taking a suitable example.
5. What do you understand by conceptual dependency? Give the conceptual dependency for the following.
i) John shot marry <https://www.rgpvonline.com>
ii) John fertilized the field
iii) Mary drove her car to the office
6. a) What do you mean by natural language processing? Why it is needed? What are the various application of NLP?
b) Explain planning and block world problem.
7. a) Differentiate between supervised and unsupervised learning with proper example showing the basic difference.
b) What is learning? Explain the important components of learning. <https://www.rgpvonline.com>
8. Write short notes (Any three):
i) Common Sense
ii) Game playing
iii) Frames
iv) Expert system

64