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Roll No

MCA-401**M.C.A. IV Semester**

Examination, June 2017

Artificial Intelligence and Applications*Time : Three Hours**Maximum Marks : 70***Note:** i) Attempt any five questions.

ii) All questions carry equal marks.

1. a) Explain various manipulation function used in LISP?
Explain with taking a suitable example? 7
 - b) Explain following term related to LISP. 7
 - i) Recursion
 - ii) Predicates and conditionals
 2. a) What is production system? Explain it with an example.
Discuss the characteristics of a production system. 7
 - b) Explain best first search techniques? 7
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3. Explain about semantic networks with its architecture and explain How it is used for knowledge representation. 14

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4. Consider the following sentences:

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- a) John likes all kinds of food.
- b) Apples are food www.rgpvonline.com
- c) Anything anyone eats and is not by is food.
- d) Chicken is food.

Translate these sentences into predicate logic.

5. a) What are the steps in natural language processing? List and explain them briefly? 7
- b) Explain the concept of game playing? Describe any one techniques? 7
6. Explain the basic architecture of an expert system. Also give its applicability it different areas with suitable example? 14
7. a) Explain Top Down parsing and Bottom Up parsing with an example? 7
- b) Explain learning? Discuss its various types? 7
8. Write a short notes (any two): 14
 - a) Reasoning
 - b) AO* Algorithm www.rgpvonline.com
 - c) Planning.

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