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Seventh Semester B.E. Degree Examination, Dec.2018/Jan.2019
Artificial Intelligence

Time: 3 hrs.

Max. Marks:100

**Note: Answer any FIVE full questions, selecting
atleast TWO questions from each part.**

PART – A

- 1 a. What is an artificial intelligence? What are the task domains of artificial intelligence? (08 Marks)
 b. Explain why AI is important. (08 Marks)
 c. Discuss the underlying assumption of AI. (04 Marks)
- 2 a. There are 2 jugs, 4 gallon jug and a 3 gallon jug. Neither has any measuring markers on it. There is a pump that can be used to fill the jugs with water. How can get exactly 2 gallons of water into the 4 gallon jug? Write the production rules for this water jug problem. (08 Marks)
 b. What is production system? Explain in detail. (05 Marks)
 c. Explain DFS and BFS in detail. (07 Marks)
- 3 a. Explain approaches to knowledge representation. (10 Marks)
 b. Explain procedure versus declarative knowledge. (10 Marks)
- 4 a. Write note about instance and ISA relationships. (10 Marks)
 b. Explain the resolution in propositional logic. (10 Marks)

PART – B

- 5 a. Explain Baye's theorem. What is a rule based system? (10 Marks)
 b. Explain briefly (i) Bayesian network (ii) Shafer theory. (10 Marks)
- 6 a. What is an expert system? What are its types? (10 Marks)
 b. Explain the process of knowledge acquisition. (10 Marks)
- 7 Explain briefly the salient features of the following typical expert system used in practice.
 a. MYCIN
 b. PROSPECTOR
 c. DENDRAL
 d. PUFF (20 Marks)
- 8 Explain the following :
 a. Perceptrons
 b. Learning Automata
 c. Intelligence editors. (20 Marks)

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