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P.E.S. College of Engineering, Mandya - 571 401
(An Autonomous Institution affiliated to VTU, Belgaum)
Eighth Semester, B.E. – Computer Science and Engineering
Semester End Examination; June/July - 2015
Artificial Intelligence

Time: 3 hrs

Max. Marks: 100

Note: Answer any FIVE full questions selecting at least TWO full questions from each part.

PART - A

1. a. What is Artificial Intelligence? What are the categories of AI ? Briefly explain. 10
- b. Briefly discuss the development of AI. 10
2. a. Explain production systems with an example. 10
- b. Discuss how to solve hard problems using heuristics search techniques. 10
3. a. Explain the following with an example : 10
- i) Procedural knowledge representation 10
- ii) Declarative knowledge 10
- b. Discuss the issues of knowledge representation. 10
4. a. Discuss propositional logic with an example. 10
- b. Explain first-order-logic with an example. 10

PART – B

5. a. Explain non-monotonic reasoning and probabilistic reasoning. 10
- b. Discuss how to represent knowledge in semantic nets and frames. 10
6. a. Explain pattern matching algorithm with an example. 10
- b. What is planning? Discuss partial order planning and what are its applications? 10
7. a. Discuss what are the certainty factors in rule-based systems. 10
- b. Discuss the significance of conditional probability for a Bayesian network. 10
8. a. Discuss how to represent and use domain knowledge in expert systems. 10
- b. Explain how to build expert systems with an example. 10