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10MT753

**Seventh Semester B.E. Degree Examination, Jan./Feb. 2021**  
**Artificial Intelligence**

Time: 3 hrs.

Max. Marks:100

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

**PART – A**

- 1 a. What is an AI? What are the underlying Assumption? (10 Marks)  
b. What is the importance of AI and explain AI and related fields. (10 Marks)
- 2 a. What is production system and its characteristics? (10 Marks)  
b. Explain Hill climbing and its types. (10 Marks)
- 3 a. Explain the following with an example  
i) Procedural knowledge  
ii) Simple relational knowledge (10 Marks)  
b. Compare and contrast the Forward and Backward reasoning Technique. (10 Marks)
- 4 a. Explain Syntax and Semantics for propositional logic. (10 Marks)  
b. Properties of WFFs. (10 Marks)

**PART – B**

- 5 a. Explain the Baye's theorem based on probability. (10 Marks)  
b. Briefly explain Dempster 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 a. Briefly explain MYCIN. And what are its variants. (10 Marks)  
b. Explain Dendral and Puffs. (10 Marks)
- 8 Explain :  
a. Learning automata  
b. Genetic algorithm  
c. Intelligent Editors. (20 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.