

Hall Ticket Number:

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III/IV B.Tech (Regular) DEGREE EXAMINATION

August, 2021

Sixth Semester

Time: Three Hours

Computer Science and Engineering

Artificial Intelligence

Maximum: 50 Marks

Answer Question No. 1 Compulsorily.

(10X1 = 10 Marks)

Answer ANY ONE question from each Unit.

(4X10=40 Marks)

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|---------------------------------|-----|
| 1. a) Define Intelligent agent. | CO1 |
| b) Define Heuristic Function. | CO1 |
| c) What is AND-OR graph? | CO1 |
| d) What is horn clause? | CO2 |
| e) What is unification? | CO2 |
| f) Define refutation. | CO2 |
| g) What is semantic network? | CO3 |
| h) Define susman's anomaly. | CO3 |
| i) What is an expert system? | CO4 |
| j) Define learning. | CO4 |

Unit - I

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| 2. a) What is uninformed search? Briefly describe about any three uninformed search strategies. | CO1 | 10 M |
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(OR)

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| 3. a) Explain A* algorithm in detail. | CO1 | 5M |
| b) Explain about Constraint Satisfaction Problems. | CO1 | 5M |

Unit - II

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| 4. a) Explain Wumpus world and its representation using propositional logic. | CO2 | 10M |
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| 5. a) Differentiate propositional and first order logic. | CO2 | 5M |
| b) Describe in detail about forward and backward chaining in propositional logic. | CO2 | 5M |

Unit - III

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| 6. By considering an example blocks world problem, explain goal stack planning. | CO3 | 10M |
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| 7. a) Explain about Hierarchical planning. | CO3 | 5M |
| b) Write a script for entering restaurant scene. | CO3 | 5M |

Unit - IV

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| 8. a) Describe in detail about expert system shells.. | CO4 | 5M |
| b) Explain about rote learning and it's use. | CO4 | 5M |

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| 9. a) Discuss in detail about Learning in Problem solving. | CO4 | 5M |
| b) Describe in detail about version space. | CO4 | 5M |