

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)

B.Tech II Year II Semester Regular & Supplementary Examinations June-2024
ARTIFICIAL INTELLIGENCE AND ITS APPLICATIONS

CSE(Artificial Intelligence)

Time: 3 Hours

Max. Marks: 60

(Answer all Five Units 5 x 12 = 60 Marks)

UNIT-I

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|---|---|---|-----|----|----|
| 1 | a | Define Artificial Intelligence and Elaborate about its think ability. | CO1 | L3 | 6M |
| | b | Explain the role of AI in Education and Finance. | CO1 | L4 | 6M |

OR

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|---|---|--|-----|----|----|
| 2 | a | Discuss the role of AI in Online and telephone customer service. | CO1 | L2 | 6M |
| | b | What are the languages that support AI over a period of time? Explain. | CO1 | L3 | 6M |

UNIT-II

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|---|---|---|-----|----|----|
| 3 | a | Explain about DFS. Deduce it with an example. List its Pros and Cons. | CO2 | L4 | 6M |
| | b | Write an example program for DFS using python. | CO2 | L2 | 6M |

OR

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|---|---|--|-----|----|----|
| 4 | a | Differentiate informed search and uninformed search. | CO2 | L3 | 6M |
| | b | Write a short note on Problem Reduction "AND-OR" graphs with an example. | CO2 | L2 | 6M |

UNIT-III

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|---|---|--|-----|----|----|
| 5 | a | What is Propositional Logic? Explain the facts and types in it in detail | CO3 | L3 | 6M |
| | b | How effectively Propositional Calculus is used in AI? Explain | CO3 | L2 | 6M |

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|---|---|---|-----|----|----|
| 6 | a | Write the algorithm of "Resolution in Propositional Logic" and explain with an example. | CO3 | L4 | 6M |
| | b | Explain in detail about Forward and Backward Chaining in AI. | CO3 | L2 | 6M |

UNIT-IV

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|---|---|--|-----|----|----|
| 7 | a | How representations and Mappings in KR is done? Explain. | CO4 | L2 | 6M |
| | b | Describe the approaches to Knowledge Representation. | CO4 | L3 | 6M |

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|---|---|--|-----|----|----|
| 8 | a | Distinguish Inferential Knowledge Vs Procedural Knowledge. | CO4 | L4 | 6M |
| | b | How non binary predicates are represented using semantic net. Explain with suitable example. | CO4 | L2 | 6M |

UNIT-V

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|---|---|---|-----|----|----|
| 9 | a | Briefly explain the Robotic Perceptron in AI. | CO5 | L4 | 6M |
| | b | Explain Information Retrieval in AI. | CO5 | L2 | 6M |

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|----|---|--|-----|----|----|
| 10 | a | Explain the types, components and characteristics in Perceptron. | CO5 | L3 | 6M |
| | b | Discuss the components in Robotic Hardware. | CO5 | L2 | 6M |

*** END ***

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