

**SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR**  
(AUTONOMOUS)  
**B.Tech III Year II Semester Regular Examinations August-2023**

**ARTIFICIAL INTELLIGENCE**  
(Computer Science and Engineering)

Time: 3 Hours

Max. Marks: 60

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

**UNIT-I**

1 Explain in details about the four approaches that are followed in AI CO1 L2 12M

OR

2 a What is planning in AI? Explain the Basic components of a planning system in AI. CO1 L1 6M

b Explain in detail of four major types of uncertainties in DecisionMaking Problems. CO1 L2 6M

**UNIT-II**

3 a Illustrate the concept of Problem Solving Agent with an example. CO2 L3 6M

b Design and Solve Vacuum Cleaner toy problem in AI. CO2 L6 6M

OR

4 Discuss about CO4 L2 12M

i) Greedy best-first search.      ii) A\* search

**UNIT-III**

5 a Explain resolution in predicate logic with suitable example CO3 L2 6M

b Discuss Wumpus World Problem based on a knowledge-based agent. CO3 L2 6M

OR

6 Discuss the Bayes rule inference with an example. CO3 L5 12M

**UNIT-IV**

7 a What are the various of Feedback Analysis in Learning CO5 L1 6M

b Analyze the Linear Regression in Supervised Learning. CO5 L4 6M

OR

8 Explain about Evaluating And Choosing The Best Hypothesis. CO5 L2 12M

**UNIT-V**

9 a List out the Benefits of Expert Systems. CO5 L1 6M

b Discuss about hybrid expert system in detail CO5 L2 6M

OR

10 a Describe the phases of developing an Expert system. CO6 L2 6M

b Discuss Expert systems design examples. CO6 L2 6M

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