SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
B.Tech. III Year I Semester Regular & Supplementary Examinations February-2024
FUNDAMENTALS OF ARTIFICIAL INTELLIGENCE
(CSE with Specialization in Cloud Computing)

Time: 3 Hours **Max. Marks: 60**

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

UNIT-I

1	a	Define Artificial Intelligence and Elaborate about its think ability.	CO1	L1	6M
	b	Identify what are the capabilities of a computer in terms of AI.	CO1	L3	6M

OR

2	a	What are the languages that support AI over a period of time? Explain.	CO1	L2	6M
	b	How AI is transformed over the years? What are the languages supported by it.	CO1	L1	6M

UNIT-II

3	a	Explain about BFS. Deduce it with an example. List the Pros and Cons in it.	CO2	L2	6M
	b	What are the characteristics of a problem? How effectively it can be solved?	CO2	L1	6M

OR

4	a	Write a short note on Constraint Satisfaction Problem with an example.	CO2	L1	6M
	b	How Game playing strategies helps to improve effectiveness in search?	CO3	L2	6M

UNIT-III

5	a	What is Mathematical Deduction? How it helps to solve Logic Problems.	CO4	L2	6M
	b	What is Propositional Logic? Explain the facts and types in it in detail.	CO4	L2	6M

OR

6	a	Write the algorithm of "Resolution in Propositional Logic" and explain with an example.	CO4	L1	6M
	b	What is set-of-support strategy and how predicate logic complements by making use of it.	CO4	L3	6M

UNIT-IV

7		How KR using Semantic Network is done. Explain in detail.	CO5	L1	12M

OR

8	a	List the four properties that a KR system must have.	CO5	L1	6M
	b	Represent the following facts using semantic nets:	CO5	L2	6M

- John gave the book to Mary
- John is 6 feet tall and that he is taller than Bill

UNIT-V

9		Explain Components of Expert Systems in detail.	CO6	L2	12M

OR

10		What is a Bayesian belief network? By using Bayesian belief network, Calculate the probability that alarm has sounded, but there is neither a burglary, nor an earthquake occurred, and David and Sophia both called the Harry.	CO6	L3	12M

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