O.P.Code: 20CS0901	R20	H.T.No.									

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

B.Tech II Year II Semester Regular & Supplementary Examinations August-2023

FUNDAMENTALS OF ARTIFICIAL INTELLIGENCE
(Common to CAD & CSM)

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

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

UNIT-I

1	a	Explain the role of AI in Education and finance.	CO1	L2	6M
	b	Explain the role of AI in Online and telephone customer service.	CO1	L2	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	What are the general steps in Problem Solving? Explain in detail why it is used in Artificial Intelligence.	CO2	L2	6M
	b	Explain in detail about the Process in Control Strategies.	CO2	L2	6M
		OR			
4		Explain about Alpha-Beta Pruning with α and β algorithms. Prepare a Graph Tree and explain it.	CO2	L3	12M

UNIT-III

5	a	What is Mathematical Deduction? How it helps to solve Logic Problems.	CO3	L2	6M
	b	What is Propositional Logic? Explain the facts and types in it in detail.	CO3	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	L2	6M

UNIT-IV

7	a	Distinguish Inferential Knowledge Vs Procedural Knowledge.	CO5	L3	6M
	b	How non binary predicates are represented using semantic net. Explain with suitable example.	CO5	L2	6M
		OR			
8		Represent the following facts using partitioned semantic nets: i) The dog bit the mail carrier. ii) Every dog has bitten a mail carrier. iii) Every dog in town has bitten the constable. iv) Every dog has bitten every mail carrier	CO5	L2	12M

UNIT-V

9		Explain Components of Expert Systems in detail	CO6	L2	12M
		OR			
10	a	Describe the phases of developing an Expert system.	CO6	L2	6M
	b	Distinguish Expert system and Traditional system.	CO6	L2	6M

***** END *****