Q.P. Code: 18CS0535 **R18**

Reg. No: | | | | | | | | | | |

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR

(AUTONOMOUS)

B.Tech IV Year I Semester Regular Examinations February-2022

ARTIFICIAL INTELLIGENCE & MACHINE LEARNING

(Common to CSE & CSIT)

Time: 3 hours Max. Marks: 60

PART-A

(Answer all the Questions **5 x 2 = 10** Marks)

1	a	Define components of AI program.	L1	2M
	b	What are the four ways to evaluate an algorithm? Name them?	L1	2M
	c	What is supervised learning?	L1	2M
	d	Differentiate between supervised learning and unsupervised learning	L1	2M
	e	What is reinforcement learning?	L1	2M

PART-B

(Answer all Five Units 5 x 10 = 50 Marks)

UNIT-I

2	a	Explain Foundations of Artificial Intelligence.	L1	5M
	b	What are the applications of Artificial Intelligence?	L2	5M

OR

3		Define an agent. What are the characteristics of Intelligent agent? Describe typical Intelligent system briefly.	L1	10M

UNIT-II

4		Briefly, explain about Heuristic search algorithm.	L2	10M

OR

5		Write about Hill searching algorithm and Local beam search algorithm.	L1	10M

UNIT-III

6		Write in detail about Bayesian Decision Theory.	L2	10M

OR

7		Explain in detail about back propagation algorithm.	L2	10M

UNIT-IV

8		Explain in detail about K-Means algorithm.	L2	10M

OR

9		Write about linear discriminate analysis.	L1	10M

UNIT-V

10		State and explain non-parametric density estimation.	L4	10M

OR

11		List and explain in detail about elements of reinforcement learning.	L1	10M

END