28 APR 2023

Reg. No.												

Question Paper Code	11825

B.E. / B.Tech. - DEGREE EXAMINATIONS, APRIL / MAY 2023

Sixth Semester

Computer Science and Engineering

CS8691 - ARTIFICIAL INTELLIGENCE

(Regulations 2017)

Duration: 3 Hours | Max. Marks: 100

PART - A (10 × 2 = 20 Marks)

Answer ALL Questions

		Marks, K-Level, CO
1.	Define Artificial Intelligence.	*2,K1,CO1*
2.	Describe the characteristics of intelligent agent.	*2,K2,CO1*
3.	What are the steps to solve the problem solving?	*2,K1,CO2*
4.	Define optimization problem.	*2,K1,CO2*
5.	What is meant by Pruning?	*2,K1,CO3*
6.	What is meant by Game Playing?	*2,K1,CO3*
7.	Differentiate negotiation and Bargaining.	*2,K2,CO5*
8.	Define bilateral negotiation.	*2,K1,CO5*
9.	Describe Robotic Perception	*2,K2,CO6*
10.	What is Information Extraction?	*2,K1,CO6*

PART - B (5 × 13 = 65 Marks)

Answer ALL Questions

11.	a)	Explain in details about Typical Intelligent Agents with examples.	*13,K2,CO1*
		OR	
	b)	Explain in details about Problem Solving Approach to Typical AI problems.	*13,K2,CO1*
12.	a)	Describe various Informed search techniques& its types with examples.	*13,K2,CO2*
		OR	
	b)	Describe about the various Search Strategies & its types with examples.	*13,K2,CO2*
13.	a)	Explain in detail about min-max algorithm with suitable example.	*13,K2,CO3*
		OR	

b) Explain in detail about the Alpha – Beta Pruning. Solve it with own example. *13,K2,CO3*

14. a) Draw and Explain the following intelligent architecture. *13,K2,CO5*
(i) Reactive Architectures
(ii) Deliberative Architectures
(iii) Blackboard Architectures

OR

b) Explain in detail about Agent communication concept in AI and explain how agent communication done in AI. *13,K2,CO5*

15. a) Explain the concept of machine translation in detail and how machine translation done in AI. *13,K2,CO6*

OR

b) Explain the various applications of Artificial Intelligence in detail. *13,K2,CO6*

PART - C (1 × 15 = 15 Marks)

16. a) Prove that "Robert is criminal." Using forward chaining. *15,K3,CO4*
As per the law, it is a crime for an American to sell weapons to hostile nations. Country A, an enemy of America, has some missiles, and all the missiles were sold to it by Robert, who is an American citizen."

OR

b) Prove by resolution that: John likes peanuts. *15,K3,CO4*

(i) John likes all kind of food.

(ii) Apple and vegetable are food

(iii) Anything anyone eats and not killed is food.

(iv) Anil eats peanuts and still alive

(v) Harry eats everything that Anil eats.