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COER University END SEMESTER EXAMINATION, EVEN SEM 2022-23

Time : 3 hours Total Marks : 100 Program Name : BCA Semester : IV Course Name : Artificial Intelligence Course Code : SOC Note: All questions are compulsory. No student is allowed to leave the examination hall before the completion of the time.			
0 No 1	Attempt Any Four Parts, Each Question Carries 5 Marks.	СО	BL
(a)	What is the difference between AI and non-AI techniques? Provide examples of each.	CO 1	1
(b)	Explain knowledge base systems help in solving complex problems?	CO 1	2
(c)	What is First Order Logic, and how does it differ from Propositional Logic? Provide	CO 1	1
(an example of now First Order Edge earlier earlier important in AI?	CO 1	1
(a)	Define the wumpus world problem and trup roblem-solving in AI systems?	CO 1	3
(e)	Use the goal stack implementation used for proceeding a		
O No 2	Attempt Any Four Parts Fach Question Carries 5 Marks.	СО	BL
Q. NO 2	List the structure of an agent influence its performance?	CO 2	1
(a) (b)	What is Constraint Satisfaction? Explain how it is used in problem-solving and how it	CO 2	2
(c)	What is Resolution, and how is it used in Propositional Logic? Explain the process of	CO 2	2
	applying Resolution to a propositional regional test algorithm, and how does it work?	CO 2	3
(e)	Discuss the applications and advantages of Neural Networks. Also, provide a brief introduction to single layer and multiplayer networks.	CO 2	2
	Anter Sour Parts Each Question Carries 5 Marks.	СО	BL
Q. No 3 (a)	What is the Depth-First Search (DFS) algorithm? Describe its process of searching	CO 3	2
(1-)	Evaluation the backtracking and how is it used in Al?	CO 3	2
(C)	Explain the oacknacking and new is it accentration access study of an expert system Explain the concept of Expert Systems, and provide a case study of an expert system	CO 3	2
	Evaluin the importance of A L representation in building intelligent systems.	CO 3	2
(a) (e)	Discuss the applications and advantages of Neural Networks. Also, provide a brief introduction to single layer and multiplayer networks.	CO 3	2
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Q. No 4	Attempt Any Two Parts. Each Question Carries 10 Marks.	CO 4	2
(a)	Explain the architecture of a multi-layer neural network and how it can be used for complex problem-solving.	04	2
(b)	Explain the backtracking and how is it used for problem-solving in knowledge-based systems?	CO 4	2
(c)	Describe the Blocks World problem and its relevance in the field of Artificial Intelligence. Explain how it can be solved using different planning techniques.	CO 4	2
		CO	RI
Q. No 5	Attempt Any Two Parts. Each Question Carries 10 Marks.		1
(a)	Explain the difference between uninformed search strategies and informed search strategies. Give an example of each and explain how they are applied in real-world problems.	05	•
(b)	Describe the Wumpus World problem and how it can be solved using knowledge representation techniques. Provide an example of how propositional logic can be used	CO 5	1
(c)	Discuss the STRIPS language for representing actions and states in Planning. Provide examples to illustrate its usage.	CO 5	1