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MCA
(SEM IV) THEORY EXAMINATION 2021-22
SOFT COMPUTING

Time: 3 Hours**Total Marks: 100****Note:** Attempt all Sections. If you require any missing data, then choose suitably.**SECTION A****1. Attempt all questions in brief. 2*10 = 20**

Qno	Questions	CO
(a)	Explain Soft computing.	1
(b)	What is the basic concept of Neural network?	1
(c)	Define Unsupervised learning.	2
(d)	List the different kind of Learning methods.	2
(e)	Define Crisp logic.	3
(f)	What do you mean by Classical sets?	3
(g)	Define Genetic Technique.	4
(h)	Define Evolutionary computing.	4
(i)	How Hybrid system is differ from Traditional system in soft computing.	5
(j)	What is Neuro fuzzy hybrid system?	5

SECTION B**2. Attempt any three of the following: 10*3 = 30**

Qno	Questions	CO
(a)	Discuss the characteristics and limitation of Neural Networks.	1
(b)	Illustrate about the Kohonen self-organizing features maps.	2
(c)	What is Inference Engine? Explain all its types.	3
(d)	Discuss the Classification of Genetic Algorithm.	4
(e)	Explain Neuro Genetic Hybrid system with example.	5

SECTION C**3. Attempt any one part of the following: 10*1 = 10**

(a)	Discuss in brief about the history of Artificial Neural Network.	1
(b)	Explain the Neural Network Architecture with diagram.	1

4. Attempt any one part of the following: 10 * 1 = 10

(a)	Explain the Back propagation network with diagram.	2
(b)	Discuss about the Recurrent Neural Network(RNN) with example.	2

5. Attempt any one part of the following: 10*1 = 10

(a)	Explain the process of Fuzzification with proper example.	3
(b)	Define Fuzzy logic. Explain the Inference rules.	3

6. Attempt any one part of the following: 10*1 = 10

(a)	What do you mean by Crossover? Explain Mutation process in details.	4
(b)	Discuss all the search techniques in details.	4

7. Attempt any one part of the following: 10*1 = 10

(a)	Illustrate about the Fuzzy Genetic Hybrid System.	5
(b)	Explain the Swarm Intelligence with example.	5