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Roll No.

TMC-403(4)

M. C. A. (FOURTH SEMESTER)

MID SEMESTER

EXAMINATION, May, 2023

SOFT COMPUTING

Time : 1½ Hours

Maximum Marks : 50

Note : (i) Answer all the questions by choosing any *one* of the sub-questions.

(ii) Each sub-question carries 10 marks.

1. (a) Differentiate between Hard and Soft Computing. Explain different types of activation function used in Neural Network. (CO1)

OR

- (b) Explain the types of neural network with block diagram. (CO1)

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2. (a) Differentiate Recurrent Network and Temporal Feed-forward Network with example and diagram. (CO1)

OR

- (b) Explain basic component of human brain. Differentiate biological neuron and artificial neuron. (CO1)

3. (a) Differentiate among Supervised, Unsupervised and Reinforcement learning with example and block diagram. (CO2)

OR

- (b) Explain Mc-Cullah-Pit's Model with realization of NAND and OR gate. (CO2)

4. (a) Explain training process for Perceptron Model. (CO2)

OR

- (b) Write short notes on the following : (CO2)

(i) Multilayer perceptron

(ii) Least mean square algorithm

(iii) Non-linearly separable problem

(3)

5. (a) Explain how back propagation algorithm can be made perform better. (CO2)

OR

- (b) What are the different factors affecting Back Propagation ? Also list the application of Back Propagation Network. (CO2)

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