

Supplementary Examination-2023
Department of Computer Science and Engineering
Jamia Hamdard , New Delhi-110062
Paper Code: BTCSE - DED33
Subject: NEURAL NETWORK AND DEEP LEARNING

Time: 3 Hours

MM: 75

Answer ALL questions from section-A and FOUR questions from section-B

Section-A (5x7=35 Marks)

S.No.	Question	Marks	CO	BL
1.	What do you mean by feed forward network. Explain.	5	CO1	L1, L3
2.	What is the difference between Supervised Learning and Unsupervised Learning? Explain with real life examples.	5	CO5	L1, L2
3.	Differentiate between MLP, CNN, and RNN.	5	CO4	L3
4.	What is the difference between loss function and activation function?	5	CO3	L4
5.	Can linear regression be used for representing quadratic equations? If yes, how? Explain with suitable examples.	5	CO5	L5
6.	What is overfitting and underfitting?	5	CO2	L4
7.	How will you relate AI, machine learning, and deep learning? Can AI exist without deep learning? Explain.	5	CO4	L2, L5

Section-B (10x4=40 Marks)

S.No	Question	Marks	CO	BL
1	Explain the procedure of weight updating in neural network in backpropagation.	10	CO1	L6
2	Why do we need dimensionality reduction? What are its drawbacks? Give two deep learning/machine learning mechanism for dimensionality reduction.	10	CO2	L2
3	What is logistic regression? Explain with suitable example. List 5 different applications area for this.	10	CO3	L4
4	Choose an example of your own, show step by step implementation of ANN/CNN for that problem including initialization to backpropagating for prediction. Show bias and weight calculation also	10	CO4	L2
5	Explain pooling, padding and stride in CNN with example	10	CO5	L2, L3
6	Explain the difference between deep learning, machine learning, and transfer learning with one example each.	10	CO2	L4

----- Best wishes -----