



**SATHYABAM INSTITUTE OF SCIENCE AND  
TECHNOLOGY**  
(Deemed to be University)  
**School of Electrical and Electronics**

**SECA4002 – DEEP LEARNING NEURAL NETWORKS**

**Assignment -1**

**Due Date: On or Before 26-07-2021**

**Fill in the Blanks / MCQ Questions: (5\*1 = 5 Marks)**

1. The measure of difference between the estimated value from its true value is called \_\_\_\_\_.  
(a) Loss function (b) gradient function (c) Training (d) Learning
2. A Machine learning procedure with error detection and error correction mechanism is termed as \_\_\_\_\_.  
(a) Unsupervised Learning algorithms (b) **Supervised Learning algorithms**  
(c) Reinforced Learning algorithms (d) None of the above given options
3. The average sum of absolute difference between the actual and predicted values is called \_\_\_\_\_.  
\_\_\_\_\_.
4. \_\_\_\_\_ function is used in Logistic Regression networks.
5. Support vectors are the data points that lie closest to the decision surface  
(a) TRUE (b) FALSE

**Short Questions: (5\*1 = 5 Marks)**

1. Illustrate the concept of Gradient Descent Algorithm.
2. Justify the need for artificial Neural Network's?
3. Classify the different training/learning process involved in Machine Learning.
4. Elucidate the concept of shallow networks.
5. List the different loss functions used in neural networks?

**Long Question (1\*5 = 5 Marks)**

1. An image processing engineer working in a disaster monitoring and mitigating agency is involved in identifying the water bodies and marking the boundaries of these water resources from satellite images. Help him by suggesting an appropriate Single-layer feed forward procedure which classifies the water bodies from other regions. Also comment on the pros and cons of the algorithm used in this process.

\*\*\*\*\* ALL THE BEST \*\*\*\*\*

**Note:** The answers for the above questions can be hand written and upload them in LMS as PDF, DOC, DOCX formats on or before 26/07/2021. The answer sheets which you submit should have your Name, Register no.