**SWS3009A Robotics and Deep Learning**

**Deep Learning Lab 2 Answer Book**

**SUBMISSION DEADLINE: SATURDAY 8 JULY 2023, 11.59 pm**

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**Marks:** \_\_\_\_\_\_\_\_ / 3

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**Question 1 Answer:**

Reshape the **train\_x** and **test\_x** arrays to have a new shape. The number "3072" appears to be the total number of elements in each sample of the input data, meaning it will have 3072 elements.

**train\_x.shape[0]** represents the size of the first dimension of the **train\_x** array. For a two-dimensional array, the **shape** attribute returns a tuple containing the sizes of each dimension, with indices ordered from left to right. Therefore, **train\_x.shape[0]** gives the number of rows or samples in the **train\_x** array.

In the given code, **train\_x.reshape(train\_x.shape[0], 3072)** uses **train\_x.shape[0]** to determine the size of the first dimension, ensuring that the reshaped array has the same number of samples as the original array but with each sample having 3072 elements.

**Question 2 Answer:**

**Question 3 Answer:**

**Question 4 Answer:**

(Fill answer here)