2CSDE61 - Deep Learning

List of Practical

Sr. No.	List of Experiments	Hours	Mapped CLO
1	Kaggle: Titanic ï Machine Learning from Disaster (https://www.kaggle.com/c/titanic)	2	1,2,3
2	Basics of Tensorflow and Keras	2	1
3	Conventional Feed Forward Neural Network on MNIST. Write code using (a) Sequential Class (b) Model Class API	2	1, 2, 3
4	Kaggle: Digit Recognizer (Digit Recognizer | Kaggle)	2	1, 2, 3
5	Kaggle: CIFAR-10 - Object Recognition in Images (https://www.kaggle.com/c/cifar-10/overview). Use transfer learning.	4	1, 2, 3
5.1 (Optional)	An automatic kinship classifier. (Kaggle: https://www.kaggle.com/c/recognizing-faces-in-the-wild/overview)	2	1, 2, 3
6	Image Segmentation & Detection using Deep Networks	4	1, 2, 3
7	Auto Encoders for Dimensionality Reduction	2	1, 2, 3
7.1 (Optional)	Stacked Auto Encoders and Stacked Sparse Auto Encoders for Image Denoising		1, 2, 3
8	Build a language model using RNN. Write functions to sample novel sentences and find the probability of input sentence. Also, use Recurrent Neural Network for Sentiment Analysis.	4	1, 2, 3
9	Recurrent Neural Network for Image Captioning	4	1, 2, 3
10	GAN for MNIST like image generation.	2	1, 2, 3
10.1 (Optional)	Unsupervised MNIST		1, 2, 3
10.2 (Optional)	The Pac-Man Projects (http://ai.berkeley.edu/project_overview.html)		1, 2, 3