VIII CS Deep Learning - DL 2019 QUESTION PAPER

Deep Learning (University of Mumbai)

B.E. (Comps) (Sem-VIII) (CBCGS) (R-19-20) (C Scheme)

(3 Hours)   [Total Marks: 80]

N. B.   1. Question **No. 1** is Compulsory
         2. Attempt any **three** questions, from the remaining five questions.
         3. Assume suitable data if **necessary** and justify the assumption.
         4. Figure to the **right** indicates full marks

Q1.   Attempt any **four** of following   [20]

A   Design NAND gate using Mc-culloch Pitt Model.

B   What is activation function? Describe any two activation function.

C   Discuss regularization in autoencoders.

D   Explain Padding and Stride.

E   Describe Sequence Learning Problem.

Q2.   A   Explain Optimization. Discuss SGD and Adam Optimization algorithms.   [10]

B   Explain LSTM architecture in detail.   [10]

Q3.   A   Describe different types of autoencoders   [10]

B   What is significance of Loss function? Describe MSE and Cross Entropy.   [10]

Q4.   A   Discuss RNN learning.   [10]

B   Explain Convolution and pooling operation with an example.   [10]

Q5.   A   Explain Early stopping, Batch normalization, Data augmentation.   [10]

B   Elaborate working of GAN.   [10]

Q6.   Attempt any **two** from the following.   [20]

A   Elaborate LeNET architecture.

B   What is significance of Vanishing and Exploding Gradients.

C   Explain contractive autoencoders. Give its applications.

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